

ALMANAC XLVI TRANSITS VISIBLE FROM MARS IN CE

The almanac XLVI contains a list of transits visible from Mars from the 1st millennium CE to the 125th millennium CE.

During the period of 250 000 years, the total number of transits visible from Mars is 74 301 transits visible from Mars (54 411 transits of Mercury, 13 099 transits of Venus, 3 392 transits of Earth, 3 399 transits of Moon).

1ST MILLENNIUM CE

This is a list of transits visible from Mars in the 1st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	2-09-26 00:57 J		1722056.43	1722056.54	1722056.66	0.1785	0.0175	
Mercury	12-02-16 10:47 J		1725486.84	1725486.95	1725487.06	0.1792	0.0403	
Mercury	13-03-14 16:47 J		1725879.08	1725879.20	1725879.32	0.1750	0.1212	
Mercury	21-07-08 20:24 J		1728917.25	1728917.35	1728917.44	0.1798	0.1000	
Mercury	22-08-04 14:09 J		1729308.92	1729309.09	1729309.26	0.1743	0.0204	
Mercury	23-06-14 05:16 J		1729622.65	1729622.72	1729622.79	0.1771	0.1355	
Venus	27-07-10 06:00 J		1731109.58	1731109.75	1731109.92	0.1635	0.0269	
Mercury	30-11-29 05:45 J		1732347.69	1732347.74	1732347.79	0.1806	0.1616	
Mercury	31-12-25 12:14 J		1732738.86	1732739.01	1732739.16	0.1736	0.0756	
Mercury	32-11-03 15:07 J		1733053.03	1733053.13	1733053.23	0.1778	0.0803	
Mercury	41-05-16 11:02 J		1736168.92	1736168.96	1736169.00	0.1729	0.1674	
Mercury	42-03-27 00:57 J		1736483.43	1736483.54	1736483.66	0.1785	0.0244	
Mercury	51-08-17 10:47 J		1739913.83	1739913.95	1739914.06	0.1791	0.0349	
Mercury	52-09-12 17:31 J		1740306.12	1740306.23	1740306.34	0.1750	0.1310	
Venus	56-09-28 12:57 J		1741782.86	1741783.04	1741783.22	0.1895	0.0107	
Venus	59-07-08 23:02 J		1742796.30	1742796.46	1742796.61	0.1629	0.0703	
Mercury	61-01-06 20:24 J		1743344.25	1743344.35	1743344.44	0.1799	0.0943	
Venus	61-05-08 00:57 J		1743465.45	1743465.54	1743465.63	0.1643	0.1382	
Mercury	62-02-02 15:07 J		1743735.96	1743736.13	1743736.29	0.1743	0.0310	
Mercury	62-12-13 05:16 J		1744049.65	1744049.72	1744049.78	0.1771	0.1409	
Mercury	70-05-30 05:45 J		1746774.68	1746774.74	1746774.80	0.1806	0.1550	
Mercury	71-06-25 12:57 J		1747165.89	1747166.04	1747166.20	0.1736	0.0661	
Mercury	72-05-04 15:07 J		1747480.03	1747480.13	1747480.23	0.1778	0.0861	
Moon	75-04-29 09:21 J		1748569.76	1748569.89	1748570.03	0.1780	0.1336	
Earth	75-04-29 16:04 J		1748570.02	1748570.17	1748570.31	0.1781	0.1178	*

Mercury	80-11-14 11:31 J	1750595.92	1750595.98	1750596.04	0.1729	0.1593
Mercury	81-09-25 01:12 J	1750910.43	1750910.55	1750910.66	0.1784	0.0305
Mercury	91-02-15 10:47 J	1754340.83	1754340.95	1754341.06	0.1791	0.0284
Mercury	92-03-13 18:14 J	1754733.16	1754733.26	1754733.36	0.1751	0.1407
Venus	93-05-06 18:28 J	1755152.10	1755152.27	1755152.44	0.1637	0.0386
Mercury	100-07-07 20:24 J	1757771.25	1757771.35	1757771.45	0.1798	0.0881
Mercury	101-08-03 15:50 J	1758163.00	1758163.16	1758163.33	0.1743	0.0412
Mercury	102-06-13 05:02 J	1758476.65	1758476.71	1758476.78	0.1771	0.1468
Mercury	109-11-28 05:45 J	1761201.67	1761201.74	1761201.80	0.1805	0.1494
Mercury	110-12-24 13:40 J	1761592.92	1761593.07	1761593.23	0.1736	0.0567
Mercury	111-11-03 15:07 J	1761907.03	1761907.13	1761907.23	0.1777	0.0918
Mercury	120-05-15 12:28 J	1765022.94	1765023.02	1765023.10	0.1729	0.1487
Mercury	121-03-26 00:57 J	1765337.43	1765337.54	1765337.66	0.1784	0.0358
Venus	122-07-26 15:21 J	1765824.97	1765825.14	1765825.32	0.1892	0.0484
Venus	125-05-05 11:16 J	1766838.81	1766838.97	1766839.13	0.1631	0.0588
Venus	127-03-05 12:43 J	1767507.96	1767508.03	1767508.09	0.1645	0.1514
Mercury	130-08-16 10:47 J	1768767.83	1768767.95	1768768.06	0.1792	0.0223
Mercury	131-09-12 18:57 J	1769160.21	1769160.29	1769160.38	0.1751	0.1512
Mercury	140-01-06 20:24 J	1772198.25	1772198.35	1772198.45	0.1798	0.0815
Mercury	141-02-01 16:19 J	1772590.02	1772590.18	1772590.34	0.1743	0.0492
Mercury	141-12-12 05:16 J	1772903.66	1772903.72	1772903.77	0.1770	0.1527
Mercury	149-05-29 05:45 J	1775628.67	1775628.74	1775628.81	0.1805	0.1431
Mercury	150-06-24 14:38 J	1776019.95	1776020.11	1776020.27	0.1736	0.0464
Mercury	151-05-04 15:07 J	1776334.04	1776334.13	1776334.23	0.1777	0.0979
Venus	154-07-26 16:47 J	1777513.10	1777513.20	1777513.30	0.1901	0.1565
Venus	157-05-04 03:35 J	1778525.61	1778525.65	1778525.71	0.1626	0.1543
Venus	159-03-04 06:28 J	1779194.60	1779194.77	1779194.93	0.1639	0.0513
Mercury	159-11-14 13:12 J	1779449.95	1779450.05	1779450.14	0.1729	0.1396
Mercury	160-09-24 00:57 J	1779764.43	1779764.54	1779764.66	0.1784	0.0418
Mercury	170-02-14 10:47 J	1783194.83	1783194.95	1783195.06	0.1791	0.0164

Mercury	171-03-13 19:55 J	1783587.26	1783587.33	1783587.39	0.1751	0.1611
Moon	175-10-28 17:02 J	1785277.03	1785277.21	1785277.38	0.1759	0.0836
Earth	175-10-28 22:04 J	1785277.25	1785277.42	1785277.60	0.1759	0.0592 *
Mercury	179-07-07 20:24 J	1786625.24	1786625.35	1786625.45	0.1798	0.0762
Mercury	180-08-02 17:16 J	1787017.07	1787017.22	1787017.38	0.1744	0.0605
Mercury	181-06-12 05:02 J	1787330.66	1787330.71	1787330.76	0.1770	0.1581
Venus	188-05-22 17:31 J	1789867.08	1789867.23	1789867.39	0.1889	0.0866
Mercury	188-11-27 05:45 J	1790055.67	1790055.74	1790055.82	0.1805	0.1366
Mercury	189-12-23 15:21 J	1790446.97	1790447.14	1790447.30	0.1736	0.0376
Mercury	190-11-02 15:07 J	1790761.04	1790761.13	1790761.22	0.1777	0.1035
Venus	191-03-02 23:45 J	1790881.32	1790881.49	1790881.65	0.1633	0.0475
Venus	192-12-31 00:43 J	1791550.53	1791550.53	1791550.53	0.1647	0.1645
Mercury	199-05-15 13:40 J	1793876.96	1793877.07	1793877.18	0.1729	0.1309
Mercury	200-03-25 01:12 J	1794191.44	1794191.55	1794191.66	0.1784	0.0480
Mercury	209-08-15 10:47 J	1797621.83	1797621.95	1797622.06	0.1791	0.0112
Mercury	210-09-11 20:24 J	1798014.32	1798014.35	1798014.39	0.1751	0.1707
Mercury	219-01-05 20:24 J	1801052.24	1801052.35	1801052.46	0.1798	0.0695
Mercury	220-02-01 18:14 J	1801444.10	1801444.26	1801444.41	0.1744	0.0703
Venus	220-05-22 19:12 J	1801555.17	1801555.30	1801555.44	0.1898	0.1188
Mercury	220-12-11 05:02 J	1801757.67	1801757.71	1801757.75	0.1770	0.1639
Venus	223-03-01 16:04 J	1802568.09	1802568.17	1802568.25	0.1627	0.1431
Venus	224-12-29 18:43 J	1803237.13	1803237.28	1803237.44	0.1640	0.0633
Mercury	228-05-28 05:45 J	1804482.66	1804482.74	1804482.82	0.1805	0.1309
Mercury	229-06-23 16:04 J	1804874.01	1804874.17	1804874.34	0.1736	0.0274
Mercury	230-05-03 15:07 J	1805188.04	1805188.13	1805188.22	0.1777	0.1096
Mercury	238-11-13 14:24 J	1808303.99	1808304.10	1808304.22	0.1729	0.1213
Mercury	239-09-24 00:57 J	1808618.43	1808618.54	1808618.65	0.1784	0.0530
Mercury	249-02-13 10:47 J	1812048.84	1812048.95	1812049.07	0.1791	0.0043
Venus	254-03-19 20:38 J	1813909.23	1813909.36	1813909.49	0.1886	0.1231
Earth	254-10-31 10:47 J	1814134.81	1814134.95	1814135.10	0.1753	0.1090

Moon	254-10-31 14:24 J	1814134.96	1814135.10	1814135.24	0.1753	0.1251 *
Venus	256-12-28 11:45 J	1814923.83	1814923.99	1814924.16	0.1634	0.0356
Mercury	258-07-06 20:24 J	1815479.24	1815479.35	1815479.46	0.1798	0.0634
Mercury	259-08-02 18:43 J	1815871.13	1815871.28	1815871.43	0.1744	0.0793
Mercury	260-06-11 05:16 J	1816184.69	1816184.72	1816184.75	0.1770	0.1701
Mercury	267-11-27 05:45 J	1818909.66	1818909.74	1818909.82	0.1805	0.1247
Mercury	268-12-22 16:47 J	1819301.03	1819301.20	1819301.37	0.1737	0.0180
Mercury	269-11-01 15:07 J	1819615.04	1819615.13	1819615.22	0.1777	0.1150
Mercury	278-05-14 15:21 J	1822731.01	1822731.14	1822731.27	0.1729	0.1113
Mercury	279-03-25 00:57 J	1823045.44	1823045.54	1823045.65	0.1784	0.0596
Earth	280-04-26 00:28 J	1823443.34	1823443.52	1823443.70	0.1767	0.0694
Moon	280-04-26 08:24 J	1823443.68	1823443.85	1823444.02	0.1767	0.0824 *
Venus	286-03-19 21:35 J	1825597.24	1825597.40	1825597.56	0.1895	0.0796
Mercury	288-08-14 10:47 J	1826475.83	1826475.95	1826476.06	0.1791	0.0022
Venus	288-12-27 04:33 J	1826610.59	1826610.69	1826610.79	0.1629	0.1321
Venus	290-10-27 06:57 J	1827279.64	1827279.79	1827279.94	0.1642	0.0757
Mercury	298-01-04 20:24 J	1829906.24	1829906.35	1829906.46	0.1798	0.0576
Mercury	299-01-31 19:40 J	1830298.17	1830298.32	1830298.46	0.1744	0.0895
Mercury	299-12-11 05:02 J	1830611.70	1830611.71	1830611.72	0.1770	0.1751
Mercury	307-05-28 06:00 J	1833336.66	1833336.75	1833336.83	0.1805	0.1183
Mercury	308-06-22 17:31 J	1833728.07	1833728.23	1833728.40	0.1737	0.0088
Mercury	309-05-02 15:07 J	1834042.05	1834042.13	1834042.21	0.1777	0.1210
Mercury	317-11-12 15:50 J	1837158.03	1837158.16	1837158.29	0.1730	0.1029
Mercury	318-09-23 01:12 J	1837472.44	1837472.55	1837472.65	0.1784	0.0656
Venus	320-01-14 23:02 J	1837951.37	1837951.46	1837951.55	0.1883	0.1601
Venus	322-10-26 00:14 J	1838966.34	1838966.51	1838966.69	0.1636	0.0245
Mercury	328-02-13 10:47 J	1840902.83	1840902.95	1840903.07	0.1791	0.0076
Mercury	337-07-05 20:24 J	1844333.24	1844333.35	1844333.46	0.1798	0.0516
Mercury	338-08-01 20:24 J	1844725.22	1844725.35	1844725.49	0.1744	0.1000
Mercury	346-11-26 05:45 J	1847763.65	1847763.74	1847763.83	0.1805	0.1126

Mercury	347-12-22 18:14 J	1848155.10	1848155.26	1848155.43	0.1737	0.0033
Mercury	348-10-31 15:07 J	1848469.05	1848469.13	1848469.21	0.1777	0.1266
Venus	352-01-15 00:28 J	1849639.35	1849639.52	1849639.69	0.1893	0.0429
Venus	354-10-24 17:16 J	1850653.11	1850653.22	1850653.33	0.1630	0.1214
Mercury	356-04-17 15:07 J	1851194.10	1851194.13	1851194.16	0.1812	0.1746
Venus	356-08-23 18:57 J	1851322.15	1851322.29	1851322.44	0.1644	0.0881
Mercury	357-05-13 16:47 J	1851585.06	1851585.20	1851585.34	0.1730	0.0925
Mercury	358-03-24 00:57 J	1851899.44	1851899.54	1851899.65	0.1784	0.0711
Earth	359-04-29 19:40 J	1852301.19	1852301.32	1852301.46	0.1773	0.1275
Moon	359-04-29 19:26 J	1852301.21	1852301.31	1852301.41	0.1773	0.1454 *
Mercury	367-08-14 10:47 J	1855329.84	1855329.95	1855330.07	0.1791	0.0136
Mercury	377-01-03 20:24 J	1858760.24	1858760.35	1858760.46	0.1797	0.0454
Mercury	378-01-30 20:52 J	1859152.24	1859152.37	1859152.51	0.1744	0.1083
Mercury	386-05-27 05:45 J	1862190.65	1862190.74	1862190.84	0.1805	0.1064
Mercury	387-06-22 19:12 J	1862582.13	1862582.30	1862582.47	0.1737	0.0115
Mercury	388-05-01 15:07 J	1862896.06	1862896.13	1862896.21	0.1776	0.1326
Venus	388-08-22 12:28 J	1863008.84	1863009.02	1863009.19	0.1638	0.0126
Mercury	395-10-17 15:07 J	1865621.09	1865621.13	1865621.17	0.1812	0.1687
Mercury	396-11-11 17:31 J	1866012.08	1866012.23	1866012.37	0.1730	0.0837
Mercury	397-09-22 00:57 J	1866326.44	1866326.54	1866326.65	0.1784	0.0768
Mercury	407-02-12 10:47 J	1869756.84	1869756.95	1869757.06	0.1790	0.0194
Mercury	416-07-04 20:24 J	1873187.24	1873187.35	1873187.46	0.1798	0.0396
Mercury	417-07-31 22:04 J	1873579.30	1873579.42	1873579.54	0.1745	0.1195
Venus	417-11-11 03:07 J	1873681.45	1873681.63	1873681.81	0.1890	0.0048
Venus	420-08-21 05:16 J	1874695.60	1874695.72	1874695.85	0.1632	0.1099
Venus	422-06-21 06:43 J	1875364.65	1875364.78	1875364.92	0.1646	0.1014
Mercury	425-11-25 06:00 J	1876617.65	1876617.75	1876617.84	0.1805	0.0998
Mercury	426-12-21 19:40 J	1877009.16	1877009.32	1877009.49	0.1737	0.0202
Mercury	427-10-31 15:07 J	1877323.06	1877323.13	1877323.20	0.1777	0.1382
Mercury	435-04-17 15:07 J	1880048.08	1880048.13	1880048.18	0.1811	0.1624

Mercury	436-05-12 18:00 J	1880439.10	1880439.25	1880439.40	0.1730	0.0746
Mercury	437-03-23 01:12 J	1880753.44	1880753.55	1880753.65	0.1783	0.0832
Mercury	445-10-02 17:02 J	1883869.17	1883869.21	1883869.25	0.1723	0.1649
Mercury	446-08-13 10:47 J	1884183.83	1884183.95	1884184.06	0.1790	0.0254
Venus	454-06-20 00:28 J	1887051.35	1887051.52	1887051.70	0.1640	0.0039
Mercury	456-01-03 20:24 J	1887614.24	1887614.35	1887614.47	0.1797	0.0336
Mercury	457-01-29 22:47 J	1888006.34	1888006.45	1888006.56	0.1745	0.1291
Moon	459-10-29 09:50 J	1889008.73	1889008.91	1889009.08	0.1766	0.0448
Earth	459-10-29 12:28 J	1889008.84	1889009.02	1889009.21	0.1766	0.0296 *
Mercury	465-05-26 05:45 J	1891044.64	1891044.74	1891044.84	0.1804	0.0944
Mercury	466-06-21 20:38 J	1891436.19	1891436.36	1891436.52	0.1737	0.0304
Mercury	467-05-01 15:07 J	1891750.07	1891750.13	1891750.20	0.1776	0.1440
Mercury	474-10-16 15:07 J	1894475.07	1894475.13	1894475.19	0.1812	0.1564
Mercury	475-11-11 18:57 J	1894866.13	1894866.29	1894866.44	0.1730	0.0650
Mercury	476-09-21 00:57 J	1895180.44	1895180.54	1895180.64	0.1783	0.0881
Venus	483-09-08 05:45 J	1897723.57	1897723.74	1897723.92	0.1887	0.0326
Mercury	485-04-02 17:31 J	1898296.17	1898296.23	1898296.30	0.1723	0.1564
Mercury	486-02-11 10:47 J	1898610.84	1898610.95	1898611.07	0.1790	0.0320
Venus	486-06-18 18:00 J	1898738.11	1898738.25	1898738.39	0.1633	0.0987
Venus	488-04-17 18:57 J	1899407.17	1899407.29	1899407.41	0.1648	0.1142
Mercury	495-07-04 20:24 J	1902041.24	1902041.35	1902041.47	0.1797	0.0275
Mercury	496-07-30 23:16 J	1902433.37	1902433.47	1902433.57	0.1745	0.1381
Mercury	504-11-24 05:45 J	1905471.64	1905471.74	1905471.84	0.1804	0.0883
Mercury	505-12-20 21:21 J	1905863.23	1905863.39	1905863.55	0.1738	0.0399
Mercury	506-10-30 15:07 J	1906177.07	1906177.13	1906177.19	0.1776	0.1496
Mercury	514-04-16 15:07 J	1908902.07	1908902.13	1908902.19	0.1811	0.1501
Mercury	515-05-12 19:40 J	1909293.16	1909293.32	1909293.48	0.1730	0.0550
Venus	515-09-08 06:28 J	1909411.70	1909411.77	1909411.85	0.1897	0.1720
Mercury	516-03-22 00:57 J	1909607.45	1909607.54	1909607.64	0.1783	0.0946
Venus	520-04-16 12:43 J	1911093.86	1911094.03	1911094.21	0.1641	0.0130

Mercury	524-10-01 18:28 J	1912723.18	1912723.27	1912723.35	0.1723	0.1468
Mercury	525-08-12 10:47 J	1913037.84	1913037.95	1913038.06	0.1790	0.0371
Mercury	535-01-02 20:24 J	1916468.24	1916468.35	1916468.47	0.1797	0.0216
Mercury	536-01-30 00:14 J	1916860.42	1916860.51	1916860.60	0.1745	0.1484
Moon	538-10-31 18:28 J	1917866.16	1917866.27	1917866.39	0.1761	0.1397
Earth	538-11-01 01:55 J	1917866.47	1917866.58	1917866.69	0.1760	0.1424
Mercury	544-05-25 06:00 J	1919898.64	1919898.75	1919898.85	0.1804	0.0816
Mercury	545-06-20 22:04 J	1920290.26	1920290.42	1920290.58	0.1738	0.0493
Mercury	546-04-30 15:07 J	1920604.08	1920604.13	1920604.18	0.1776	0.1557
Venus	549-07-05 08:38 J	1921765.70	1921765.86	1921766.03	0.1884	0.0698
Venus	552-04-15 06:00 J	1922780.61	1922780.75	1922780.90	0.1635	0.0867
Mercury	553-10-15 15:07 J	1923329.06	1923329.13	1923329.20	0.1811	0.1441
Venus	554-02-13 06:14 J	1923449.66	1923449.76	1923449.87	0.1651	0.1283
Mercury	554-11-10 20:09 J	1923720.18	1923720.34	1923720.50	0.1731	0.0465
Mercury	555-09-21 00:57 J	1924034.45	1924034.54	1924034.64	0.1783	0.1005
Mercury	564-04-01 19:12 J	1927150.20	1927150.30	1927150.40	0.1723	0.1372
Moon	564-04-26 04:47 J	1927174.50	1927174.70	1927174.89	0.1759	0.0680
Earth	564-04-26 05:45 J	1927174.55	1927174.74	1927174.93	0.1759	0.0523 *
Mercury	565-02-10 10:47 J	1927464.84	1927464.95	1927465.06	0.1790	0.0431
Mercury	574-07-03 20:24 J	1930895.24	1930895.35	1930895.47	0.1797	0.0157
Mercury	575-07-31 01:12 J	1931287.48	1931287.55	1931287.61	0.1745	0.1589
Venus	581-07-05 08:52 J	1933453.74	1933453.87	1933453.99	0.1894	0.1324
Mercury	583-11-24 05:45 J	1934325.64	1934325.74	1934325.85	0.1804	0.0763
Mercury	584-12-19 22:47 J	1934717.29	1934717.45	1934717.61	0.1738	0.0591
Mercury	585-10-29 15:07 J	1935031.08	1935031.13	1935031.17	0.1776	0.1611
Venus	586-02-12 00:28 J	1935136.35	1935136.52	1935136.69	0.1644	0.0256
Mercury	593-04-15 15:07 J	1937756.06	1937756.13	1937756.21	0.1811	0.1377
Mercury	594-05-11 21:07 J	1938147.22	1938147.38	1938147.54	0.1731	0.0363
Mercury	595-03-22 00:57 J	1938461.45	1938461.54	1938461.63	0.1783	0.1058
Mercury	603-10-01 19:40 J	1941577.21	1941577.32	1941577.43	0.1723	0.1294

Mercury	604-08-11 10:47 J	1941891.84	1941891.95	1941892.06	0.1790	0.0492
Mercury	614-01-01 20:24 J	1945322.24	1945322.35	1945322.47	0.1797	0.0104
Mercury	615-01-29 01:40 J	1945714.52	1945714.57	1945714.61	0.1745	0.1674
Venus	615-05-02 11:02 J	1945807.81	1945807.96	1945808.10	0.1881	0.1079
Venus	618-02-10 18:14 J	1946823.11	1946823.26	1946823.41	0.1637	0.0749
Venus	619-12-11 18:14 J	1947492.17	1947492.26	1947492.34	0.1653	0.1418
Mercury	623-05-25 06:00 J	1948752.64	1948752.75	1948752.85	0.1804	0.0700
Mercury	624-06-19 23:45 J	1949144.33	1949144.49	1949144.64	0.1738	0.0695
Mercury	625-04-29 15:07 J	1949458.09	1949458.13	1949458.16	0.1776	0.1670
Mercury	632-10-14 15:07 J	1952183.05	1952183.13	1952183.21	0.1811	0.1320
Mercury	633-11-09 21:50 J	1952574.24	1952574.41	1952574.57	0.1731	0.0276
Mercury	634-09-20 00:57 J	1952888.45	1952888.54	1952888.63	0.1783	0.1116
Mercury	643-04-01 20:38 J	1956004.24	1956004.36	1956004.48	0.1724	0.1190
Earth	643-04-30 00:14 J	1956032.39	1956032.51	1956032.63	0.1765	0.1391
Moon	643-04-30 08:24 J	1956032.78	1956032.85	1956032.91	0.1765	0.1661
Mercury	644-02-10 10:47 J	1956318.84	1956318.95	1956319.06	0.1790	0.0549
Venus	647-05-02 11:31 J	1957495.83	1957495.98	1957496.13	0.1891	0.0946
Venus	651-12-10 12:43 J	1959178.87	1959179.03	1959179.20	0.1645	0.0381
Mercury	653-07-02 20:24 J	1959749.24	1959749.35	1959749.47	0.1797	0.0043
Mercury	662-11-23 06:00 J	1963179.64	1963179.75	1963179.86	0.1804	0.0635
Mercury	663-12-20 00:14 J	1963571.36	1963571.51	1963571.66	0.1738	0.0778
Moon	664-10-26 12:57 J	1963882.97	1963883.04	1963883.11	0.1779	0.1657
Mercury	664-10-28 15:07 J	1963885.10	1963885.13	1963885.15	0.1776	0.1726
Mercury	672-04-14 15:07 J	1966610.05	1966610.13	1966610.22	0.1811	0.1257
Mercury	673-05-10 22:19 J	1967001.27	1967001.43	1967001.60	0.1731	0.0185
Mercury	674-03-21 00:57 J	1967315.46	1967315.54	1967315.63	0.1783	0.1179
Venus	681-02-26 14:09 J	1969849.98	1969850.09	1969850.21	0.1878	0.1435
Mercury	682-09-30 21:21 J	1970431.26	1970431.39	1970431.51	0.1724	0.1098
Mercury	683-08-11 10:47 J	1970745.84	1970745.95	1970746.06	0.1790	0.0608
Venus	683-12-09 06:14 J	1970865.60	1970865.76	1970865.92	0.1639	0.0628

Venus	685-10-08 06:00 J	1971534.70	1971534.75	1971534.81	0.1655	0.1555
Mercury	692-12-31 20:24 J	1974176.24	1974176.35	1974176.47	0.1797	0.0047
Mercury	702-05-24 05:45 J	1977606.63	1977606.74	1977606.85	0.1804	0.0583
Mercury	703-06-20 00:57 J	1977998.40	1977998.54	1977998.69	0.1738	0.0885
Mercury	711-10-14 15:07 J	1981037.05	1981037.13	1981037.22	0.1811	0.1196
Mercury	712-11-08 23:16 J	1981428.30	1981428.47	1981428.63	0.1731	0.0088
Venus	713-02-26 13:55 J	1981537.91	1981538.08	1981538.25	0.1888	0.0560
Mercury	713-09-19 00:57 J	1981742.46	1981742.54	1981742.62	0.1783	0.1231
Venus	715-12-07 23:16 J	1982552.45	1982552.47	1982552.50	0.1633	0.1613
Venus	717-10-07 00:43 J	1983221.36	1983221.53	1983221.69	0.1648	0.0513
Mercury	722-03-31 21:50 J	1984858.27	1984858.41	1984858.54	0.1724	0.1014
Mercury	723-02-09 10:47 J	1985172.84	1985172.95	1985173.06	0.1790	0.0672
Mercury	732-07-01 20:24 J	1988603.24	1988603.35	1988603.47	0.1796	0.0087
Mercury	741-11-22 06:00 J	1992033.63	1992033.75	1992033.86	0.1804	0.0522
Mercury	742-12-19 01:55 J	1992425.44	1992425.58	1992425.71	0.1739	0.0982
Earth	743-10-30 00:57 J	1992740.35	1992740.54	1992740.73	0.1773	0.0038
Moon	743-10-30 08:52 J	1992740.68	1992740.87	1992741.06	0.1773	0.0048 *
Venus	746-12-24 17:16 J	1993892.17	1993892.22	1993892.26	0.1874	0.1798
Venus	749-10-05 18:28 J	1994908.11	1994908.27	1994908.44	0.1641	0.0508
Mercury	751-04-14 15:21 J	1995464.05	1995464.14	1995464.23	0.1811	0.1134
Mercury	752-05-10 00:00 J	1995855.33	1995855.50	1995855.67	0.1731	0.0016
Mercury	753-03-20 00:57 J	1996169.46	1996169.54	1996169.62	0.1782	0.1293
Mercury	760-09-04 00:14 J	1998894.49	1998894.51	1998894.54	0.1818	0.1771
Mercury	761-09-29 22:33 J	1999285.30	1999285.44	1999285.58	0.1724	0.0916
Mercury	762-08-10 10:47 J	1999599.84	1999599.95	1999600.05	0.1789	0.0725
Mercury	771-12-31 20:24 J	2003030.24	2003030.35	2003030.47	0.1797	0.0146
Venus	778-12-24 17:16 J	2005580.05	2005580.22	2005580.40	0.1885	0.0201
Mercury	781-05-23 06:00 J	2006460.64	2006460.75	2006460.86	0.1803	0.0451
Venus	781-10-04 11:45 J	2006594.93	2006594.99	2006595.06	0.1634	0.1499
Mercury	782-06-19 02:24 J	2006852.47	2006852.60	2006852.73	0.1738	0.1073

Venus	783-08-04 12:28 J	2007263.86	2007264.02	2007264.18	0.1650	0.0643
Mercury	790-10-13 15:07 J	2009891.04	2009891.13	2009891.23	0.1811	0.1076
Mercury	791-11-09 00:28 J	2010282.36	2010282.52	2010282.69	0.1731	0.0107
Mercury	792-09-18 00:57 J	2010596.47	2010596.54	2010596.61	0.1782	0.1350
Mercury	800-03-05 00:28 J	2013321.48	2013321.52	2013321.56	0.1817	0.1701
Mercury	801-03-30 23:16 J	2013712.33	2013712.47	2013712.62	0.1724	0.0820
Mercury	802-02-08 10:47 J	2014026.84	2014026.95	2014027.05	0.1789	0.0785
Mercury	811-07-01 20:24 J	2017457.24	2017457.35	2017457.47	0.1796	0.0205
Venus	815-08-03 06:14 J	2018950.59	2018950.76	2018950.93	0.1643	0.0381
Mercury	820-11-21 05:45 J	2020887.63	2020887.74	2020887.86	0.1804	0.0403
Mercury	821-12-18 03:07 J	2021279.51	2021279.63	2021279.76	0.1739	0.1173
Earth	822-11-01 15:35 J	2021598.12	2021598.15	2021598.18	0.1768	0.1735
Moon	822-11-01 17:45 J	2021598.21	2021598.24	2021598.27	0.1767	0.1741
Mercury	830-04-13 15:21 J	2024318.04	2024318.14	2024318.23	0.1811	0.1008
Mercury	831-05-10 01:26 J	2024709.39	2024709.56	2024709.73	0.1731	0.0204
Mercury	832-03-19 00:57 J	2025023.47	2025023.54	2025023.61	0.1782	0.1407
Mercury	839-09-04 00:28 J	2027748.47	2027748.52	2027748.57	0.1817	0.1640
Mercury	840-09-28 23:45 J	2028139.34	2028139.49	2028139.64	0.1724	0.0739
Mercury	841-08-09 10:47 J	2028453.85	2028453.95	2028454.05	0.1789	0.0846
Venus	844-10-20 20:09 J	2029622.16	2029622.34	2029622.51	0.1882	0.0179
Venus	847-08-01 23:45 J	2030637.40	2030637.49	2030637.58	0.1636	0.1378
Moon	848-04-26 06:43 J	2030905.60	2030905.78	2030905.96	0.1751	0.0433
Earth	848-04-26 12:14 J	2030905.82	2030906.01	2030906.21	0.1751	0.0329 *
Venus	849-06-01 00:14 J	2031306.36	2031306.51	2031306.66	0.1652	0.0781
Mercury	850-02-18 23:02 J	2031569.41	2031569.46	2031569.51	0.1718	0.1626
Mercury	850-12-30 20:24 J	2031884.24	2031884.35	2031884.47	0.1796	0.0268
Mercury	860-05-22 06:00 J	2035314.63	2035314.75	2035314.86	0.1803	0.0338
Mercury	861-06-18 04:04 J	2035706.56	2035706.67	2035706.78	0.1739	0.1276
Mercury	869-10-12 15:21 J	2038745.04	2038745.14	2038745.23	0.1810	0.0954
Mercury	870-11-08 02:09 J	2039136.42	2039136.59	2039136.75	0.1732	0.0298

Mercury	871-09-18 00:57 J	2039450.47	2039450.54	2039450.60	0.1782	0.1465
Venus	876-10-20 19:55 J	2041310.30	2041310.33	2041310.36	0.1893	0.1858
Mercury	879-03-05 00:28 J	2042175.46	2042175.52	2042175.57	0.1818	0.1579
Mercury	880-03-30 00:43 J	2042566.38	2042566.53	2042566.69	0.1725	0.0634
Mercury	881-02-07 10:47 J	2042880.85	2042880.95	2042881.05	0.1789	0.0903
Venus	881-05-30 18:28 J	2042993.10	2042993.27	2042993.44	0.1645	0.0255
Mercury	889-08-19 23:31 J	2045996.41	2045996.48	2045996.56	0.1717	0.1541
Mercury	890-06-30 20:24 J	2046311.24	2046311.35	2046311.46	0.1796	0.0323
Mercury	899-11-21 06:00 J	2049741.63	2049741.75	2049741.86	0.1803	0.0272
Mercury	900-12-17 04:33 J	2050133.59	2050133.69	2050133.79	0.1739	0.1359
Mercury	909-04-12 15:21 J	2053172.04	2053172.14	2053172.24	0.1810	0.0889
Mercury	910-05-09 02:52 J	2053563.46	2053563.62	2053563.78	0.1732	0.0395
Venus	910-08-17 23:16 J	2053664.30	2053664.47	2053664.64	0.1879	0.0541
Mercury	911-03-19 00:57 J	2053877.48	2053877.54	2053877.60	0.1782	0.1526
Venus	913-05-29 12:14 J	2054679.90	2054680.01	2054680.12	0.1638	0.1264
Venus	915-03-29 12:00 J	2055348.86	2055349.00	2055349.14	0.1654	0.0916
Mercury	918-09-03 00:28 J	2056602.46	2056602.52	2056602.58	0.1817	0.1517
Mercury	919-09-29 01:26 J	2056993.40	2056993.56	2056993.72	0.1725	0.0542
Mercury	920-08-08 10:47 J	2057307.85	2057307.95	2057308.04	0.1789	0.0962
Moon	927-04-29 23:02 J	2059763.34	2059763.46	2059763.58	0.1756	0.1406
Earth	927-04-30 05:31 J	2059763.64	2059763.73	2059763.82	0.1757	0.1533
Mercury	929-02-18 00:14 J	2060423.43	2060423.51	2060423.60	0.1718	0.1448
Mercury	929-12-29 20:24 J	2060738.24	2060738.35	2060738.46	0.1796	0.0384
Mercury	939-05-22 05:45 J	2064168.63	2064168.74	2064168.86	0.1803	0.0228
Mercury	940-06-17 05:31 J	2064560.64	2064560.73	2064560.82	0.1739	0.1470
Venus	942-08-17 22:47 J	2065352.34	2065352.45	2065352.56	0.1890	0.1478
Venus	947-03-28 06:14 J	2067035.59	2067035.76	2067035.94	0.1647	0.0133
Mercury	948-10-11 15:21 J	2067599.04	2067599.14	2067599.24	0.1810	0.0825
Moon	948-10-26 14:38 J	2067614.07	2067614.11	2067614.15	0.1787	0.1734
Earth	948-10-26 21:35 J	2067614.32	2067614.40	2067614.49	0.1787	0.1599

Mercury	949-11-07 03:35 J	2067990.49	2067990.65	2067990.81	0.1732	0.0489
Mercury	950-09-17 00:43 J	2068304.48	2068304.53	2068304.59	0.1782	0.1580
Mercury	958-03-04 00:28 J	2071029.45	2071029.52	2071029.59	0.1817	0.1453
Mercury	959-03-30 01:55 J	2071420.42	2071420.58	2071420.74	0.1725	0.0458
Mercury	960-02-07 10:47 J	2071734.86	2071734.95	2071735.04	0.1789	0.1024
Mercury	968-08-19 01:12 J	2074850.45	2074850.55	2074850.65	0.1718	0.1353
Mercury	969-06-29 20:24 J	2075165.24	2075165.35	2075165.46	0.1796	0.0441
Venus	976-06-14 02:24 J	2077706.44	2077706.60	2077706.75	0.1876	0.0908
Mercury	978-11-20 06:00 J	2078595.63	2078595.75	2078595.86	0.1803	0.0158
Venus	979-03-27 00:00 J	2078722.38	2078722.50	2078722.63	0.1640	0.1140
Mercury	979-12-17 06:14 J	2078987.69	2078987.76	2078987.83	0.1739	0.1567
Venus	981-01-23 23:16 J	2079391.34	2079391.47	2079391.60	0.1656	0.1060
Mercury	988-04-11 15:21 J	2082026.03	2082026.14	2082026.24	0.1810	0.0766
Mercury	989-05-08 04:19 J	2082417.52	2082417.68	2082417.84	0.1732	0.0587
Mercury	990-03-18 00:57 J	2082731.49	2082731.54	2082731.58	0.1782	0.1640
Mercury	997-09-02 00:28 J	2085456.45	2085456.52	2085456.59	0.1817	0.1396
Mercury	998-09-28 02:52 J	2085847.46	2085847.62	2085847.78	0.1725	0.0356
Mercury	999-08-08 10:33 J	2086161.85	2086161.94	2086162.04	0.1789	0.1078

2ND MILLENNIUM CE

This is a list of transits visible from Mars in the 2nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	1008-02-18 01:40 J	2089277.46	2089277.57	2089277.68	0.1718	0.1267		

Venus	1008-06-14 01:12 J	2089394.41	2089394.55	2089394.69	0.1887	0.1086
Mercury	1008-12-28 20:24 J	2089592.24	2089592.35	2089592.46	0.1796	0.0504
Venus	1013-01-22 18:00 J	2091078.08	2091078.25	2091078.43	0.1649	0.0035
Mercury	1018-05-21 06:00 J	2093022.63	2093022.75	2093022.87	0.1803	0.0088
Mercury	1019-06-17 06:57 J	2093414.74	2093414.79	2093414.84	0.1739	0.1656
Mercury	1027-10-11 15:21 J	2096453.03	2096453.14	2096453.24	0.1810	0.0708
Moon	1027-10-30 09:50 J	2096471.70	2096471.91	2096472.11	0.1781	0.0233
Earth	1027-10-30 12:43 J	2096471.84	2096472.03	2096472.22	0.1781	0.0229 *
Mercury	1028-11-06 05:02 J	2096844.55	2096844.71	2096844.86	0.1732	0.0679
Mercury	1029-09-16 00:57 J	2097158.50	2097158.54	2097158.57	0.1781	0.1697
Mercury	1037-03-03 00:28 J	2099883.45	2099883.52	2099883.60	0.1817	0.1330
Mercury	1038-03-29 03:35 J	2100274.49	2100274.65	2100274.82	0.1725	0.0260
Mercury	1039-02-06 10:48 J	2100588.86	2100588.95	2100589.03	0.1789	0.1139
Venus	1042-04-11 05:02 J	2101748.59	2101748.71	2101748.84	0.1872	0.1280
Venus	1045-01-21 12:14 J	2102764.88	2102765.01	2102765.15	0.1642	0.1020
Venus	1046-11-21 11:02 J	2103433.84	2103433.96	2103434.08	0.1659	0.1197
Mercury	1047-08-19 02:24 J	2103704.48	2103704.60	2103704.72	0.1718	0.1172
Mercury	1048-06-28 20:24 J	2104019.24	2104019.35	2104019.46	0.1796	0.0562
Mercury	1057-11-19 06:00 J	2107449.63	2107449.75	2107449.86	0.1803	0.0081
Mercury	1067-04-11 15:21 J	2110880.03	2110880.14	2110880.25	0.1810	0.0639
Mercury	1068-05-07 05:45 J	2111271.59	2111271.74	2111271.89	0.1732	0.0781
Mercury	1069-03-17 00:43 J	2111585.52	2111585.53	2111585.55	0.1782	0.1755
Venus	1074-04-11 04:19 J	2113436.52	2113436.68	2113436.85	0.1883	0.0715
Mercury	1076-09-01 00:28 J	2114310.44	2114310.52	2114310.61	0.1817	0.1269
Mercury	1077-09-27 04:04 J	2114701.51	2114701.67	2114701.84	0.1725	0.0177
Mercury	1078-08-07 10:48 J	2115015.87	2115015.95	2115016.03	0.1789	0.1200
Venus	1078-11-20 06:14 J	2115120.59	2115120.76	2115120.93	0.1651	0.0133
Mercury	1087-02-17 03:07 J	2118131.51	2118131.63	2118131.76	0.1718	0.1079
Mercury	1087-12-28 20:24 J	2118446.24	2118446.35	2118446.46	0.1795	0.0621
Mercury	1097-05-20 06:00 J	2121876.63	2121876.75	2121876.86	0.1803	0.0035

Mercury	1106-10-10 15:21 J	2125307.03	2125307.14	2125307.25	0.1810	0.0583
Mercury	1107-11-06 06:28 J	2125698.63	2125698.77	2125698.92	0.1732	0.0875
Venus	1108-02-06 08:52 J	2125790.78	2125790.87	2125790.95	0.1869	0.1626
Venus	1110-11-19 00:14 J	2126807.37	2126807.51	2126807.66	0.1644	0.0897
Venus	1112-09-17 22:48 J	2127476.35	2127476.45	2127476.55	0.1661	0.1340
Mercury	1116-03-02 00:28 J	2128737.44	2128737.52	2128737.61	0.1817	0.1208
Mercury	1117-03-28 05:02 J	2129128.55	2129128.71	2129128.88	0.1725	0.0073
Mercury	1118-02-05 10:48 J	2129442.86	2129442.95	2129443.03	0.1788	0.1256
Mercury	1126-08-18 03:50 J	2132558.52	2132558.66	2132558.79	0.1718	0.0993
Mercury	1127-06-28 20:24 J	2132873.24	2132873.35	2132873.46	0.1796	0.0682
Earth	1132-04-26 20:24 J	2134637.15	2134637.35	2134637.54	0.1744	0.0106
Moon	1132-04-27 02:52 J	2134637.43	2134637.62	2134637.81	0.1744	0.0023 *
Mercury	1136-11-18 06:00 J	2136303.63	2136303.75	2136303.87	0.1802	0.0092
Venus	1140-02-06 07:11 J	2137478.63	2137478.80	2137478.98	0.1880	0.0339
Venus	1144-09-16 18:00 J	2139163.08	2139163.25	2139163.42	0.1653	0.0272
Mercury	1146-04-10 15:21 J	2139734.03	2139734.14	2139734.25	0.1810	0.0519
Mercury	1147-05-07 07:26 J	2140125.67	2140125.81	2140125.94	0.1733	0.0975
Mercury	1155-09-01 00:28 J	2143164.44	2143164.52	2143164.61	0.1817	0.1147
Mercury	1156-09-26 05:45 J	2143555.57	2143555.74	2143555.91	0.1725	0.0023
Mercury	1157-08-06 10:48 J	2143869.87	2143869.95	2143870.02	0.1788	0.1315
Mercury	1165-01-21 09:35 J	2146594.88	2146594.90	2146594.92	0.1824	0.1787
Mercury	1166-02-16 04:33 J	2146985.55	2146985.69	2146985.83	0.1719	0.0896
Mercury	1166-12-27 20:24 J	2147300.25	2147300.35	2147300.46	0.1795	0.0741
Mercury	1176-05-19 06:00 J	2150730.63	2150730.75	2150730.86	0.1803	0.0151
Venus	1176-09-15 12:28 J	2150849.86	2150850.02	2150850.17	0.1646	0.0774
Venus	1178-07-16 10:04 J	2151518.85	2151518.92	2151518.99	0.1664	0.1488
Mercury	1185-10-09 15:21 J	2154161.03	2154161.14	2154161.25	0.1810	0.0457
Mercury	1186-11-05 07:55 J	2154552.70	2154552.83	2154552.97	0.1733	0.1067
Mercury	1195-03-02 00:43 J	2157591.44	2157591.53	2157591.62	0.1816	0.1080
Mercury	1196-03-27 06:14 J	2157982.60	2157982.76	2157982.93	0.1726	0.0118

Mercury	1197-02-04 10:48 J	2158296.88	2158296.95	2158297.02	0.1788	0.1378
Mercury	1204-07-22 09:35 J	2161021.87	2161021.90	2161021.94	0.1824	0.1723
Mercury	1205-08-17 05:16 J	2161412.58	2161412.72	2161412.87	0.1719	0.0799
Venus	1205-12-03 11:16 J	2161520.79	2161520.97	2161521.15	0.1877	0.0012
Mercury	1206-06-27 20:24 J	2161727.25	2161727.35	2161727.45	0.1795	0.0800
Venus	1210-07-15 05:45 J	2163205.57	2163205.74	2163205.91	0.1655	0.0404
Moon	1211-04-30 11:45 J	2163494.92	2163494.99	2163495.06	0.1749	0.1618
Earth	1211-04-30 12:57 J	2163495.02	2163495.04	2163495.07	0.1749	0.1726 *
Mercury	1215-01-07 04:33 J	2164842.67	2164842.69	2164842.72	0.1712	0.1686
Mercury	1215-11-18 06:00 J	2165157.63	2165157.75	2165157.86	0.1802	0.0212
Mercury	1225-04-09 15:21 J	2168588.03	2168588.14	2168588.25	0.1809	0.0398
Mercury	1226-05-06 08:52 J	2168979.75	2168979.87	2168979.99	0.1733	0.1168
Earth	1232-10-27 07:11 J	2171345.68	2171345.80	2171345.92	0.1795	0.1407
Moon	1232-10-27 12:00 J	2171345.89	2171346.00	2171346.11	0.1794	0.1434 *
Mercury	1234-08-31 00:43 J	2172018.43	2172018.53	2172018.62	0.1817	0.1023
Mercury	1235-09-26 07:11 J	2172409.64	2172409.80	2172409.97	0.1726	0.0216
Mercury	1236-08-05 10:33 J	2172723.88	2172723.94	2172724.01	0.1788	0.1431
Venus	1242-07-14 00:14 J	2174892.35	2174892.51	2174892.66	0.1648	0.0644
Mercury	1244-01-21 09:50 J	2175448.86	2175448.91	2175448.96	0.1823	0.1652
Venus	1244-05-12 21:50 J	2175561.38	2175561.41	2175561.44	0.1666	0.1632
Mercury	1245-02-15 06:00 J	2175839.60	2175839.75	2175839.90	0.1719	0.0715
Mercury	1245-12-26 20:24 J	2176154.25	2176154.35	2176154.45	0.1795	0.0864
Mercury	1254-07-08 05:16 J	2179269.66	2179269.72	2179269.77	0.1712	0.1597
Mercury	1255-05-19 06:00 J	2179584.64	2179584.75	2179584.87	0.1802	0.0278
Mercury	1264-10-08 15:21 J	2183015.03	2183015.14	2183015.25	0.1809	0.0337
Mercury	1265-11-04 09:35 J	2183406.79	2183406.90	2183407.01	0.1733	0.1265
Venus	1271-09-30 14:24 J	2185562.92	2185563.10	2185563.27	0.1874	0.0383
Mercury	1274-03-01 00:43 J	2186445.43	2186445.53	2186445.63	0.1816	0.0954
Mercury	1275-03-27 07:55 J	2186836.67	2186836.83	2186837.00	0.1726	0.0316
Mercury	1276-02-04 10:48 J	2187150.89	2187150.95	2187151.01	0.1788	0.1493

Venus	1276-05-11 17:16 J	2187248.06	2187248.22	2187248.39	0.1658	0.0546
Mercury	1283-07-22 09:35 J	2189875.85	2189875.90	2189875.96	0.1823	0.1601
Mercury	1284-08-16 06:43 J	2190266.63	2190266.78	2190266.94	0.1719	0.0616
Mercury	1285-06-26 20:24 J	2190581.25	2190581.35	2190581.45	0.1795	0.0920
Mercury	1294-01-06 06:00 J	2193696.67	2193696.75	2193696.83	0.1712	0.1505
Mercury	1294-11-17 06:00 J	2194011.63	2194011.75	2194011.86	0.1802	0.0331
Venus	1303-09-30 12:57 J	2197250.96	2197251.04	2197251.13	0.1885	0.1628
Mercury	1304-04-08 15:35 J	2197442.03	2197442.15	2197442.26	0.1809	0.0271
Mercury	1305-05-05 10:19 J	2197833.83	2197833.93	2197834.03	0.1733	0.1365
Venus	1308-05-10 12:14 J	2198934.84	2198935.01	2198935.17	0.1650	0.0516
Moon	1311-10-30 20:09 J	2200203.17	2200203.34	2200203.51	0.1789	0.0592
Earth	1311-10-31 00:14 J	2200203.32	2200203.51	2200203.69	0.1789	0.0488 *
Mercury	1313-08-30 00:43 J	2200872.43	2200872.53	2200872.63	0.1816	0.0894
Mercury	1314-09-25 08:38 J	2201263.69	2201263.86	2201264.02	0.1726	0.0398
Mercury	1315-08-05 10:48 J	2201577.89	2201577.95	2201578.00	0.1788	0.1553
Mercury	1323-01-20 09:50 J	2204302.85	2204302.91	2204302.97	0.1823	0.1531
Mercury	1324-02-15 07:26 J	2204693.65	2204693.81	2204693.97	0.1719	0.0521
Mercury	1324-12-25 20:24 J	2205008.25	2205008.35	2205008.45	0.1795	0.0980
Mercury	1333-07-07 06:43 J	2208123.69	2208123.78	2208123.87	0.1712	0.1409
Mercury	1334-05-18 06:00 J	2208438.64	2208438.75	2208438.86	0.1802	0.0397
Earth	1337-04-24 16:19 J	2209511.09	2209511.18	2209511.27	0.1731	0.1533
Venus	1337-07-27 18:00 J	2209605.09	2209605.25	2209605.42	0.1871	0.0731
Venus	1340-05-09 06:28 J	2210621.72	2210621.77	2210621.83	0.1643	0.1547
Venus	1342-03-09 04:48 J	2211290.55	2211290.70	2211290.86	0.1660	0.0688
Mercury	1343-10-08 15:21 J	2211869.03	2211869.14	2211869.26	0.1809	0.0218
Mercury	1344-11-03 11:02 J	2212260.88	2212260.96	2212261.05	0.1733	0.1461
Mercury	1353-02-28 00:43 J	2215299.43	2215299.53	2215299.63	0.1816	0.0830
Mercury	1354-03-26 09:35 J	2215690.74	2215690.90	2215691.06	0.1726	0.0504
Mercury	1355-02-03 10:33 J	2216004.90	2216004.94	2216004.99	0.1788	0.1610
Mercury	1362-07-21 09:50 J	2218729.85	2218729.91	2218729.98	0.1823	0.1466

Mercury	1363-08-16 08:09 J	2219120.68	2219120.84	2219121.00	0.1719	0.0433
Mercury	1364-06-25 20:24 J	2219435.26	2219435.35	2219435.44	0.1795	0.1042
Venus	1369-07-27 16:33 J	2221293.06	2221293.19	2221293.32	0.1882	0.1260
Mercury	1373-01-05 07:11 J	2222550.70	2222550.80	2222550.91	0.1712	0.1325
Mercury	1373-11-16 06:00 J	2222865.64	2222865.75	2222865.87	0.1802	0.0461
Venus	1374-03-07 23:45 J	2222977.33	2222977.49	2222977.66	0.1652	0.0382
Mercury	1383-04-08 15:21 J	2226296.03	2226296.14	2226296.26	0.1809	0.0162
Mercury	1384-05-04 12:00 J	2226687.93	2226688.00	2226688.07	0.1734	0.1563
Mercury	1392-08-29 00:43 J	2229726.43	2229726.53	2229726.64	0.1816	0.0769
Mercury	1393-09-24 10:19 J	2230117.77	2230117.93	2230118.08	0.1726	0.0599
Mercury	1394-08-04 10:33 J	2230431.91	2230431.94	2230431.98	0.1788	0.1669
Mercury	1402-01-19 09:50 J	2233156.84	2233156.91	2233156.98	0.1823	0.1406
Mercury	1403-02-14 08:52 J	2233547.71	2233547.87	2233548.03	0.1719	0.0334
Venus	1403-05-24 21:35 J	2233647.26	2233647.40	2233647.54	0.1867	0.1086
Mercury	1403-12-25 20:24 J	2233862.26	2233862.35	2233862.44	0.1795	0.1101
Venus	1406-03-06 18:14 J	2234664.17	2234664.26	2234664.34	0.1645	0.1417
Venus	1408-01-04 16:19 J	2235333.03	2235333.18	2235333.33	0.1663	0.0834
Mercury	1412-07-06 08:09 J	2236977.73	2236977.84	2236977.96	0.1712	0.1226
Mercury	1413-05-17 06:00 J	2237292.64	2237292.75	2237292.86	0.1802	0.0515
Moon	1416-04-27 06:00 J	2238368.54	2238368.75	2238368.96	0.1736	0.0305
Earth	1416-04-27 06:43 J	2238368.59	2238368.78	2238368.98	0.1736	0.0186 *
Mercury	1422-10-07 15:35 J	2240723.03	2240723.15	2240723.26	0.1809	0.0091
Mercury	1423-11-03 12:28 J	2241114.98	2241115.02	2241115.07	0.1734	0.1656
Mercury	1432-02-28 00:43 J	2244153.43	2244153.53	2244153.64	0.1816	0.0705
Mercury	1433-03-25 10:48 J	2244544.80	2244544.95	2244545.10	0.1727	0.0689
Mercury	1434-02-02 10:48 J	2244858.93	2244858.95	2244858.97	0.1787	0.1732
Venus	1435-05-24 19:11 J	2245335.14	2245335.30	2245335.46	0.1878	0.0876
Venus	1440-01-03 11:31 J	2247019.81	2247019.98	2247020.16	0.1654	0.0248
Mercury	1441-07-20 09:50 J	2247583.84	2247583.91	2247583.99	0.1823	0.1342
Mercury	1442-08-15 09:50 J	2247974.74	2247974.91	2247975.07	0.1720	0.0235

Mercury	1443-06-25 20:24 J	2248289.26	2248289.35	2248289.44	0.1794	0.1160
Mercury	1452-01-05 08:52 J	2251404.74	2251404.87	2251404.99	0.1713	0.1139
Mercury	1452-11-15 06:00 J	2251719.64	2251719.75	2251719.86	0.1802	0.0578
Mercury	1462-04-07 15:35 J	2255150.03	2255150.15	2255150.26	0.1809	0.0068
Venus	1469-03-21 01:11 J	2257689.44	2257689.55	2257689.66	0.1863	0.1444
Mercury	1471-08-29 00:43 J	2258580.43	2258580.53	2258580.64	0.1816	0.0645
Venus	1472-01-02 06:28 J	2258706.66	2258706.77	2258706.87	0.1647	0.1296
Mercury	1472-09-23 11:45 J	2258971.84	2258971.99	2258972.14	0.1727	0.0793
Mercury	1473-08-03 10:33 J	2259285.94	2259285.94	2259285.95	0.1787	0.1785
Venus	1473-11-01 04:04 J	2259375.53	2259375.67	2259375.80	0.1665	0.0976
Mercury	1481-01-18 10:04 J	2262010.84	2262010.92	2262011.00	0.1823	0.1272
Mercury	1482-02-13 10:19 J	2262401.76	2262401.93	2262402.09	0.1720	0.0155
Mercury	1482-12-24 20:24 J	2262716.27	2262716.35	2262716.44	0.1795	0.1224
Mercury	1491-07-06 09:35 J	2265831.77	2265831.90	2265832.03	0.1713	0.1045
Mercury	1492-05-16 06:14 J	2266146.65	2266146.76	2266146.86	0.1801	0.0644
Venus	1501-03-20 23:02 J	2269377.29	2269377.46	2269377.63	0.1875	0.0519
Mercury	1501-10-06 15:35 J	2269577.03	2269577.15	2269577.26	0.1809	0.0066
Venus	1505-10-30 23:45 J	2271062.32	2271062.49	2271062.66	0.1657	0.0116
Mercury	1511-02-27 00:57 J	2273007.43	2273007.54	2273007.65	0.1815	0.0580
Mercury	1512-03-24 12:28 J	2273398.88	2273399.02	2273399.16	0.1727	0.0890
Earth	1516-10-27 16:33 J	2275077.05	2275077.19	2275077.33	0.1802	0.1220
Moon	1516-10-27 20:24 J	2275077.21	2275077.35	2275077.49	0.1802	0.1292 *
Mercury	1520-07-19 09:50 J	2276437.83	2276437.91	2276438.00	0.1823	0.1220
Mercury	1521-08-14 11:16 J	2276828.80	2276828.97	2276829.13	0.1720	0.0068
Mercury	1522-06-24 20:24 J	2277143.27	2277143.35	2277143.43	0.1794	0.1280
Mercury	1531-01-04 10:19 J	2280258.79	2280258.93	2280259.06	0.1713	0.0952
Mercury	1531-11-15 06:00 J	2280573.65	2280573.75	2280573.86	0.1802	0.0698
Venus	1535-01-16 05:16 J	2281731.67	2281731.72	2281731.77	0.1860	0.1779
Venus	1537-10-29 18:14 J	2282749.14	2282749.26	2282749.38	0.1649	0.1170
Venus	1539-08-29 15:21 J	2283418.01	2283418.14	2283418.27	0.1667	0.1123

Mercury	1541-04-06 15:35 J	2284004.04	2284004.15	2284004.27	0.1808	0.0110
Mercury	1550-08-28 00:57 J	2287434.42	2287434.54	2287434.65	0.1815	0.0523
Mercury	1551-09-23 12:57 J	2287825.91	2287826.04	2287826.18	0.1727	0.0979
Mercury	1560-01-18 10:04 J	2290864.83	2290864.92	2290865.01	0.1822	0.1148
Mercury	1561-02-12 12:00 J	2291255.83	2291256.00	2291256.16	0.1720	0.0053
Mercury	1561-12-23 20:24 J	2291570.28	2291570.35	2291570.43	0.1794	0.1340
Venus	1567-01-16 02:24 J	2293419.42	2293419.60	2293419.77	0.1872	0.0157
Mercury	1569-06-09 18:57 J	2294295.27	2294295.29	2294295.31	0.1829	0.1803
Mercury	1570-07-05 11:02 J	2294685.82	2294685.96	2294686.10	0.1713	0.0855
Mercury	1571-05-16 06:14 J	2295000.65	2295000.76	2295000.86	0.1801	0.0763
Venus	1571-08-28 11:16 J	2295104.79	2295104.97	2295105.14	0.1659	0.0042
Mercury	1580-10-05 15:35 J	2298431.03	2298431.15	2298431.26	0.1808	0.0165
Mercury	1590-03-08 00:57 G	2301861.43	2301861.54	2301861.65	0.1815	0.0453
Mercury	1591-04-03 13:55 G	2302252.96	2302253.08	2302253.21	0.1727	0.1086
Earth	1595-11-10 10:33 G	2303934.77	2303934.94	2303935.12	0.1796	0.0737
Moon	1595-11-10 18:14 G	2303935.11	2303935.26	2303935.41	0.1796	0.1049 *
Mercury	1599-07-29 10:04 G	2305291.83	2305291.92	2305292.02	0.1822	0.1084
Mercury	1600-08-23 12:28 G	2305682.86	2305683.02	2305683.19	0.1720	0.0140
Mercury	1601-07-03 20:38 G	2305997.29	2305997.36	2305997.43	0.1794	0.1405
Venus	1603-09-06 06:14 G	2306791.63	2306791.76	2306791.89	0.1651	0.1043
Venus	1605-07-06 02:38 G	2307460.50	2307460.61	2307460.72	0.1670	0.1275
Mercury	1608-12-18 18:57 G	2308722.26	2308722.29	2308722.33	0.1829	0.1739
Mercury	1610-01-13 11:45 G	2309112.84	2309112.99	2309113.13	0.1713	0.0769
Mercury	1610-11-24 06:14 G	2309427.65	2309427.76	2309427.86	0.1801	0.0824
Mercury	1619-06-05 11:16 G	2312542.93	2312542.97	2312543.02	0.1707	0.1630
Mercury	1620-04-15 15:35 G	2312858.04	2312858.15	2312858.26	0.1808	0.0224
Earth	1621-05-05 05:16 G	2313242.58	2313242.72	2313242.86	0.1724	0.1167
Moon	1621-05-05 06:14 G	2313242.64	2313242.76	2313242.88	0.1724	0.1286 *
Mercury	1629-09-06 00:57 G	2316288.43	2316288.54	2316288.65	0.1815	0.0393
Mercury	1630-10-02 14:52 G	2316680.00	2316680.12	2316680.24	0.1727	0.1182

Venus	1632-11-22 06:57 G	2317461.61	2317461.79	2317461.96	0.1868	0.0192
Venus	1637-07-04 23:02 G	2319147.29	2319147.46	2319147.63	0.1661	0.0162
Mercury	1639-01-27 10:04 G	2319718.83	2319718.92	2319719.02	0.1822	0.1024
Mercury	1640-02-22 13:26 G	2320109.89	2320110.06	2320110.22	0.1720	0.0239
Mercury	1641-01-01 20:24 G	2320424.29	2320424.35	2320424.42	0.1794	0.1461
Mercury	1648-06-18 19:11 G	2323149.25	2323149.30	2323149.34	0.1829	0.1672
Mercury	1649-07-14 12:28 G	2323539.87	2323540.02	2323540.17	0.1713	0.0671
Mercury	1650-05-25 06:14 G	2323854.66	2323854.76	2323854.86	0.1801	0.0883
Mercury	1658-12-04 11:45 G	2326969.93	2326969.99	2326970.06	0.1707	0.1551
Mercury	1659-10-15 15:35 G	2327285.04	2327285.15	2327285.27	0.1808	0.0290
Venus	1664-11-22 05:02 G	2329149.67	2329149.71	2329149.75	0.1880	0.1815
Mercury	1669-03-07 00:57 G	2330715.43	2330715.54	2330715.66	0.1815	0.0327
Venus	1669-07-03 18:00 G	2330834.11	2330834.25	2330834.39	0.1653	0.0910
Mercury	1670-04-02 15:21 G	2331107.03	2331107.14	2331107.26	0.1728	0.1275
Venus	1671-05-03 14:24 G	2331503.01	2331503.10	2331503.19	0.1672	0.1424
Mercury	1678-07-28 10:04 G	2334145.82	2334145.92	2334146.02	0.1822	0.0960
Mercury	1679-08-23 14:09 G	2334536.93	2334537.09	2334537.26	0.1721	0.0339
Mercury	1680-07-02 20:24 G	2334851.29	2334851.35	2334851.41	0.1794	0.1520
Mercury	1687-12-18 19:11 G	2337576.24	2337576.30	2337576.35	0.1829	0.1612
Mercury	1689-01-12 13:11 G	2337966.89	2337967.05	2337967.20	0.1713	0.0580
Mercury	1689-11-23 06:14 G	2338281.66	2338281.76	2338281.85	0.1801	0.0944
Mercury	1698-06-04 12:43 G	2341396.95	2341397.03	2341397.12	0.1707	0.1447
Venus	1698-09-19 10:19 G	2341503.76	2341503.93	2341504.10	0.1865	0.0547
Mercury	1699-04-15 15:35 G	2341712.04	2341712.15	2341712.26	0.1808	0.0347
Moon	1700-05-08 12:14 G	2342099.84	2342100.01	2342100.19	0.1729	0.0621
Earth	1700-05-08 19:26 G	2342100.12	2342100.31	2342100.49	0.1729	0.0511 *
Venus	1703-05-03 10:33 G	2343189.77	2343189.94	2343190.11	0.1664	0.0308
Mercury	1708-09-06 00:57 G	2345142.43	2345142.54	2345142.66	0.1815	0.0266
Mercury	1709-10-02 16:19 G	2345534.08	2345534.18	2345534.28	0.1728	0.1377
Mercury	1718-01-27 10:19 G	2348572.83	2348572.93	2348573.03	0.1822	0.0891

Mercury	1719-02-22 14:38 G	2348963.95	2348964.11	2348964.27	0.1720	0.0421
Mercury	1720-01-02 20:38 G	2349278.30	2349278.36	2349278.41	0.1794	0.1584
Mercury	1727-06-19 19:11 G	2352003.24	2352003.30	2352003.36	0.1829	0.1547
Mercury	1728-07-14 13:55 G	2352393.92	2352394.08	2352394.24	0.1714	0.0482
Mercury	1729-05-25 06:14 G	2352708.66	2352708.76	2352708.85	0.1800	0.1006
Venus	1730-09-20 07:55 G	2353191.72	2353191.83	2353191.94	0.1877	0.1432
Venus	1735-05-02 05:45 G	2354876.59	2354876.74	2354876.90	0.1656	0.0779
Venus	1737-03-01 01:11 G	2355545.50	2355545.55	2355545.60	0.1675	0.1587
Mercury	1737-12-04 13:26 G	2355823.96	2355824.06	2355824.16	0.1707	0.1359
Mercury	1738-10-15 15:35 G	2356139.04	2356139.15	2356139.26	0.1808	0.0409
Mercury	1748-03-07 00:57 G	2359569.43	2359569.54	2359569.66	0.1815	0.0208
Mercury	1749-04-02 17:02 G	2359961.13	2359961.21	2359961.30	0.1728	0.1476
Mercury	1757-07-28 10:04 G	2362999.82	2362999.92	2363000.03	0.1822	0.0837
Mercury	1758-08-23 15:35 G	2363390.99	2363391.15	2363391.31	0.1721	0.0530
Mercury	1759-07-03 20:24 G	2363705.31	2363705.35	2363705.40	0.1793	0.1641
Venus	1764-07-17 14:38 G	2365545.96	2365546.11	2365546.27	0.1861	0.0887
Mercury	1766-12-18 19:11 G	2366430.24	2366430.30	2366430.37	0.1829	0.1476
Mercury	1768-01-13 14:38 G	2366820.95	2366821.11	2366821.27	0.1714	0.0393
Mercury	1768-11-23 06:14 G	2367135.67	2367135.76	2367135.85	0.1801	0.1064
Venus	1769-02-27 21:50 G	2367232.24	2367232.41	2367232.57	0.1667	0.0455
Mercury	1777-06-04 13:55 G	2370250.97	2370251.08	2370251.19	0.1707	0.1274
Mercury	1778-04-15 15:50 G	2370566.04	2370566.16	2370566.27	0.1808	0.0479
Mercury	1787-09-06 00:57 G	2373996.43	2373996.54	2373996.66	0.1815	0.0147
Mercury	1788-10-01 17:45 G	2374388.17	2374388.24	2374388.31	0.1728	0.1568
Venus	1796-07-17 11:45 G	2377233.85	2377233.99	2377234.13	0.1873	0.1070
Mercury	1797-01-26 10:19 G	2377426.82	2377426.93	2377427.03	0.1822	0.0765
Mercury	1798-02-21 16:19 G	2377818.03	2377818.18	2377818.34	0.1721	0.0627
Mercury	1799-01-01 20:24 G	2378132.32	2378132.35	2378132.39	0.1793	0.1701
Moon	1800-11-08 16:48 G	2378808.09	2378808.20	2378808.31	0.1810	0.1455
Earth	1800-11-09 00:57 G	2378808.38	2378808.54	2378808.69	0.1810	0.1050

Venus	1801-02-27 17:16 G	2378919.07	2378919.22	2378919.38	0.1658	0.0642
Mercury	1806-06-19 19:11 G	2380857.23	2380857.30	2380857.37	0.1829	0.1418
Mercury	1807-07-15 15:21 G	2381247.98	2381248.14	2381248.31	0.1714	0.0294
Mercury	1808-05-25 06:14 G	2381562.67	2381562.76	2381562.85	0.1800	0.1127
Mercury	1816-12-04 14:52 G	2384678.00	2384678.12	2384678.23	0.1707	0.1178
Mercury	1817-10-15 15:35 G	2384993.04	2384993.15	2384993.26	0.1808	0.0530
Mercury	1827-03-08 01:11 G	2388423.43	2388423.55	2388423.66	0.1815	0.0089
Mercury	1828-04-02 18:43 G	2388815.24	2388815.28	2388815.32	0.1728	0.1674
Venus	1830-05-15 18:28 G	2389588.14	2389588.27	2389588.40	0.1858	0.1239
Venus	1834-12-27 09:07 G	2391274.72	2391274.88	2391275.04	0.1669	0.0605
Mercury	1836-07-28 10:19 G	2391853.82	2391853.93	2391854.04	0.1821	0.0702
Mercury	1837-08-23 17:02 G	2392245.06	2392245.21	2392245.36	0.1721	0.0712
Mercury	1838-07-03 20:38 G	2392559.34	2392559.36	2392559.37	0.1793	0.1764
Mercury	1845-12-18 19:11 G	2395284.22	2395284.30	2395284.38	0.1829	0.1353
Mercury	1847-01-13 16:04 G	2395675.00	2395675.17	2395675.33	0.1714	0.0206
Mercury	1847-11-24 06:14 G	2395989.67	2395989.76	2395989.84	0.1800	0.1186
Mercury	1856-06-04 15:35 G	2399105.02	2399105.15	2399105.28	0.1707	0.1081
Mercury	1857-04-15 15:35 G	2399420.05	2399420.15	2399420.26	0.1807	0.0600
Venus	1862-05-15 14:38 G	2401275.95	2401276.11	2401276.28	0.1870	0.0693
Mercury	1866-09-06 01:11 G	2402850.43	2402850.55	2402850.66	0.1814	0.0060
Venus	1866-12-26 05:02 G	2402961.55	2402961.71	2402961.88	0.1660	0.0502
Mercury	1876-01-27 10:19 G	2406280.82	2406280.93	2406281.04	0.1822	0.0643
Mercury	1877-02-21 17:45 G	2406672.10	2406672.24	2406672.39	0.1721	0.0814
Moon	1879-11-12 17:31 G	2407666.08	2407666.23	2407666.39	0.1804	0.1162
Earth	1879-11-12 19:55 G	2407666.17	2407666.33	2407666.49	0.1804	0.0963 *
Mercury	1885-06-18 19:26 G	2409711.23	2409711.31	2409711.39	0.1829	0.1285
Mercury	1886-07-14 16:48 G	2410102.03	2410102.20	2410102.37	0.1714	0.0108
Mercury	1887-05-25 06:14 G	2410416.68	2410416.76	2410416.84	0.1800	0.1247
Mercury	1895-12-04 16:04 G	2413532.04	2413532.17	2413532.30	0.1707	0.1000
Venus	1896-03-11 22:19 G	2413630.35	2413630.43	2413630.53	0.1854	0.1582

Mercury	1896-10-14 15:50 G	2413847.05	2413847.16	2413847.27	0.1807	0.0660
Venus	1898-12-25 00:28 G	2414648.47	2414648.52	2414648.57	0.1652	0.1578
Venus	1900-10-24 20:38 G	2415317.20	2415317.36	2415317.51	0.1672	0.0755
Earth	1905-05-08 20:09 G	2416974.16	2416974.34	2416974.51	0.1717	0.0774
Moon	1905-05-09 01:55 G	2416974.41	2416974.58	2416974.75	0.1718	0.0901 *
Mercury	1906-03-08 01:11 G	2417277.43	2417277.55	2417277.66	0.1814	0.0067
Mercury	1915-07-29 10:19 G	2420707.82	2420707.93	2420708.04	0.1821	0.0578
Mercury	1916-08-23 18:43 G	2421099.14	2421099.28	2421099.42	0.1721	0.0916
Mercury	1924-12-18 19:11 G	2424138.22	2424138.30	2424138.39	0.1828	0.1227
Mercury	1926-01-13 17:31 G	2424529.06	2424529.23	2424529.40	0.1714	0.0015
Mercury	1926-11-24 06:14 G	2424843.68	2424843.76	2424843.84	0.1800	0.1307
Venus	1928-03-12 18:57 G	2425318.12	2425318.29	2425318.47	0.1866	0.0345
Venus	1932-10-23 17:02 G	2427004.04	2427004.21	2427004.38	0.1663	0.0367
Mercury	1935-06-05 17:02 G	2427959.07	2427959.21	2427959.35	0.1708	0.0898
Mercury	1936-04-15 15:50 G	2428274.05	2428274.16	2428274.26	0.1807	0.0720
Mercury	1945-09-06 01:11 G	2431704.43	2431704.55	2431704.66	0.1814	0.0113
Mercury	1955-01-27 10:19 G	2435134.82	2435134.93	2435135.05	0.1821	0.0515
Mercury	1956-02-22 19:11 G	2435526.16	2435526.30	2435526.44	0.1721	0.0999
Mercury	1964-06-18 19:26 G	2438565.22	2438565.31	2438565.40	0.1828	0.1160
Venus	1964-10-22 12:00 G	2438690.92	2438691.00	2438691.09	0.1655	0.1445
Mercury	1965-07-14 18:14 G	2438956.10	2438956.26	2438956.43	0.1715	0.0092
Mercury	1966-05-25 06:14 G	2439270.69	2439270.76	2439270.83	0.1800	0.1370
Venus	1966-08-22 07:40 G	2439359.67	2439359.82	2439359.96	0.1674	0.0910
Mercury	1973-11-09 04:19 G	2441995.67	2441995.68	2441995.69	0.1835	0.1822
Mercury	1974-12-04 17:31 G	2442386.09	2442386.23	2442386.38	0.1708	0.0811
Mercury	1975-10-15 15:50 G	2442701.05	2442701.16	2442701.26	0.1807	0.0781
Mercury	1984-04-25 17:31 G	2445816.20	2445816.23	2445816.26	0.1701	0.1662
Earth	1984-05-11 08:38 G	2445831.69	2445831.86	2445832.03	0.1722	0.0851
Moon	1984-05-11 14:09 G	2445831.95	2445832.09	2445832.22	0.1723	0.1141 *
Mercury	1985-03-07 01:11 G	2446131.43	2446131.55	2446131.66	0.1814	0.0173

Venus	1994-01-07 22:48 G	2449360.27	2449360.45	2449360.63	0.1862	0.0017
Mercury	1994-07-28 10:19 G	2449561.82	2449561.93	2449562.04	0.1821	0.0454
Mercury	1995-08-23 20:09 G	2449953.21	2449953.34	2449953.47	0.1722	0.1108
Venus	1998-08-21 04:04 G	2451046.50	2451046.67	2451046.84	0.1665	0.0218

3RD MILLENNIUM CE

This is a list of transits visible from Mars in the 3rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	2003-12-18 19:26 G		2452992.22	2452992.31	2452992.40	0.1828	0.1091	
Mercury	2005-01-12 18:57 G		2453383.12	2453383.29	2453383.45	0.1715	0.0173	
Mercury	2005-11-23 06:14 G		2453697.69	2453697.76	2453697.83	0.1800	0.1427	
Mercury	2013-05-10 04:19 G		2456422.65	2456422.68	2456422.71	0.1835	0.1756	
Mercury	2014-06-04 18:14 G		2456813.11	2456813.26	2456813.41	0.1708	0.0722	
Mercury	2015-04-15 15:50 G		2457128.06	2457128.16	2457128.26	0.1807	0.0845	
Mercury	2023-10-25 18:14 G		2460243.20	2460243.26	2460243.32	0.1701	0.1572	
Mercury	2024-09-05 01:11 G		2460558.43	2460558.55	2460558.66	0.1814	0.0235	
Venus	2030-08-19 23:45 G		2462733.38	2462733.49	2462733.59	0.1657	0.1311	
Venus	2032-06-18 18:43 G		2463402.15	2463402.28	2463402.42	0.1677	0.1069	
Mercury	2034-01-26 10:33 G		2463988.82	2463988.94	2463989.05	0.1821	0.0389	
Mercury	2035-02-21 20:52 G		2464380.25	2464380.37	2464380.49	0.1722	0.1203	
Mercury	2043-06-18 19:26 G		2467419.21	2467419.31	2467419.40	0.1828	0.1034	
Mercury	2044-07-13 19:40 G		2467810.16	2467810.32	2467810.49	0.1715	0.0273	
Mercury	2045-05-24 06:14 G		2468124.70	2468124.76	2468124.82	0.1800	0.1489	

Mercury	2052-11-08 04:19 G	2470849.64	2470849.68	2470849.72	0.1835	0.1693
Mercury	2053-12-03 18:57 G	2471240.14	2471240.29	2471240.45	0.1708	0.0625
Mercury	2054-10-14 15:35 G	2471555.06	2471555.15	2471555.25	0.1807	0.0901
Venus	2059-11-05 03:35 G	2473402.47	2473402.65	2473402.82	0.1859	0.0349
Mercury	2063-04-25 18:43 G	2474670.20	2474670.28	2474670.36	0.1701	0.1488
Mercury	2064-03-06 01:11 G	2474985.44	2474985.55	2474985.67	0.1814	0.0307
Venus	2064-06-17 15:50 G	2475088.99	2475089.16	2475089.33	0.1668	0.0076
Mercury	2073-07-27 10:33 G	2478415.82	2478415.94	2478416.05	0.1821	0.0330
Mercury	2074-08-22 21:21 G	2478807.29	2478807.39	2478807.50	0.1722	0.1292
Mercury	2082-12-17 19:26 G	2481846.21	2481846.31	2481846.41	0.1828	0.0968
Mercury	2084-01-12 20:24 G	2482237.19	2482237.35	2482237.51	0.1715	0.0365
Earth	2084-11-10 06:00 G	2482539.59	2482539.75	2482539.92	0.1818	0.0951
Moon	2084-11-10 09:21 G	2482539.76	2482539.89	2482540.03	0.1818	0.1174 *
Mercury	2084-11-22 06:14 G	2482551.70	2482551.76	2482551.82	0.1799	0.1547
Venus	2091-11-05 00:14 G	2485090.43	2485090.51	2485090.60	0.1871	0.1624
Mercury	2092-05-09 04:19 G	2485276.63	2485276.68	2485276.74	0.1835	0.1626
Mercury	2093-06-03 19:55 G	2485667.17	2485667.33	2485667.48	0.1708	0.0530
Mercury	2094-04-14 15:50 G	2485982.06	2485982.16	2485982.26	0.1807	0.0965
Venus	2096-06-16 11:16 G	2486775.85	2486775.97	2486776.09	0.1659	0.1175
Venus	2098-04-16 06:00 G	2487444.64	2487444.75	2487444.87	0.1679	0.1225
Mercury	2102-10-25 19:26 G	2489097.22	2489097.31	2489097.40	0.1702	0.1395
Mercury	2103-09-06 01:11 G	2489412.44	2489412.55	2489412.66	0.1814	0.0357
Mercury	2113-01-26 10:33 G	2492842.82	2492842.94	2492843.05	0.1821	0.0272
Mercury	2114-02-21 22:19 G	2493234.33	2493234.43	2493234.53	0.1722	0.1394
Mercury	2122-06-18 19:40 G	2496273.22	2496273.32	2496273.42	0.1828	0.0901
Mercury	2123-07-14 21:07 G	2496664.22	2496664.38	2496664.54	0.1715	0.0460
Mercury	2124-05-24 06:14 G	2496978.71	2496978.76	2496978.81	0.1800	0.1610
Venus	2125-09-02 07:26 G	2497444.64	2497444.81	2497444.97	0.1855	0.0699
Venus	2130-04-16 02:52 G	2499131.45	2499131.62	2499131.79	0.1670	0.0080
Mercury	2131-11-09 04:19 G	2499703.62	2499703.68	2499703.74	0.1835	0.1564

Mercury	2132-12-03 20:24 G	2500094.19	2500094.35	2500094.51	0.1708	0.0448
Mercury	2133-10-14 15:50 G	2500409.07	2500409.16	2500409.25	0.1806	0.1026
Mercury	2142-04-25 20:09 G	2503524.24	2503524.34	2503524.45	0.1702	0.1301
Mercury	2143-03-07 01:11 G	2503839.44	2503839.55	2503839.66	0.1814	0.0422
Mercury	2152-07-27 10:33 G	2507269.82	2507269.94	2507270.05	0.1821	0.0205
Mercury	2153-08-22 23:16 G	2507661.39	2507661.47	2507661.55	0.1722	0.1497
Venus	2157-09-02 03:35 G	2509132.52	2509132.65	2509132.78	0.1868	0.1247
Mercury	2161-12-17 19:26 G	2510700.21	2510700.31	2510700.42	0.1828	0.0844
Venus	2162-04-14 22:48 G	2510818.32	2510818.45	2510818.59	0.1662	0.1034
Mercury	2163-01-12 21:50 G	2511091.25	2511091.41	2511091.57	0.1715	0.0554
Moon	2163-11-14 21:21 G	2511397.27	2511397.39	2511397.51	0.1812	0.1345
Earth	2163-11-15 03:21 G	2511397.49	2511397.64	2511397.78	0.1812	0.1140 *
Mercury	2163-11-23 06:14 G	2511405.72	2511405.76	2511405.80	0.1799	0.1667
Venus	2164-02-12 16:33 G	2511487.10	2511487.19	2511487.29	0.1683	0.1397
Mercury	2171-05-10 04:19 G	2514130.62	2514130.68	2514130.75	0.1835	0.1499
Mercury	2172-06-03 21:07 G	2514521.22	2514521.38	2514521.55	0.1708	0.0346
Mercury	2173-04-14 15:50 G	2514836.07	2514836.16	2514836.25	0.1806	0.1084
Mercury	2181-10-24 20:38 G	2517951.25	2517951.36	2517951.48	0.1702	0.1222
Mercury	2182-09-05 01:11 G	2518266.44	2518266.55	2518266.66	0.1814	0.0488
Moon	2189-05-10 04:48 G	2520705.52	2520705.70	2520705.88	0.1710	0.0695
Earth	2189-05-10 11:16 G	2520705.78	2520705.97	2520706.16	0.1711	0.0380 *
Venus	2191-06-30 12:00 G	2521486.85	2521487.00	2521487.14	0.1852	0.1033
Mercury	2192-01-26 10:33 G	2521696.82	2521696.94	2521697.06	0.1820	0.0133
Mercury	2193-02-20 23:31 G	2522088.42	2522088.48	2522088.55	0.1722	0.1580
Venus	2196-02-11 13:55 G	2523173.91	2523174.08	2523174.26	0.1673	0.0236
Mercury	2201-06-18 19:26 G	2525127.21	2525127.31	2525127.42	0.1828	0.0780
Mercury	2202-07-14 22:33 G	2525518.29	2525518.44	2525518.60	0.1716	0.0655
Mercury	2203-05-25 06:14 G	2525832.73	2525832.76	2525832.79	0.1799	0.1728
Mercury	2210-11-09 04:33 G	2528557.61	2528557.69	2528557.76	0.1834	0.1437
Mercury	2211-12-04 21:50 G	2528948.25	2528948.41	2528948.57	0.1709	0.0256

Mercury	2212-10-14 15:50 G	2529263.07	2529263.16	2529263.25	0.1806	0.1145
Mercury	2221-04-25 21:35 G	2532378.28	2532378.40	2532378.52	0.1702	0.1121
Mercury	2222-03-07 01:11 G	2532693.44	2532693.55	2532693.66	0.1813	0.0547
Venus	2223-07-01 07:26 G	2533174.66	2533174.81	2533174.97	0.1864	0.0890
Venus	2228-02-11 10:04 G	2534860.78	2534860.92	2534861.07	0.1664	0.0892
Venus	2229-12-11 03:50 G	2535529.60	2535529.66	2535529.73	0.1685	0.1556
Mercury	2231-07-28 10:33 G	2536123.82	2536123.94	2536124.05	0.1821	0.0092
Mercury	2232-08-23 00:43 G	2536515.50	2536515.53	2536515.56	0.1723	0.1689
Mercury	2240-12-17 19:40 G	2539554.21	2539554.32	2539554.43	0.1828	0.0710
Mercury	2242-01-12 23:16 G	2539945.32	2539945.47	2539945.62	0.1715	0.0739
Mercury	2242-11-23 06:14 G	2540259.75	2540259.76	2540259.77	0.1799	0.1787
Mercury	2250-05-10 04:33 G	2542984.61	2542984.69	2542984.76	0.1834	0.1370
Mercury	2251-06-04 22:33 G	2543375.27	2543375.44	2543375.60	0.1709	0.0169
Mercury	2252-04-14 15:50 G	2543690.08	2543690.16	2543690.25	0.1806	0.1211
Venus	2257-04-27 16:04 G	2545529.05	2545529.17	2545529.28	0.1848	0.1377
Mercury	2260-10-24 22:19 G	2546805.30	2546805.43	2546805.56	0.1702	0.1031
Mercury	2261-09-05 01:11 G	2547120.44	2547120.55	2547120.66	0.1813	0.0606
Venus	2261-12-10 01:11 G	2547216.38	2547216.55	2547216.71	0.1676	0.0388
Earth	2268-05-13 22:48 G	2549563.32	2549563.45	2549563.59	0.1716	0.1204
Moon	2268-05-14 00:28 G	2549563.41	2549563.52	2549563.63	0.1716	0.1459 *
Mercury	2271-01-26 10:33 G	2550550.82	2550550.94	2550551.06	0.1820	0.0010
Mercury	2280-06-17 19:40 G	2553981.21	2553981.32	2553981.42	0.1827	0.0656
Mercury	2281-07-14 00:00 G	2554372.36	2554372.50	2554372.65	0.1716	0.0842
Venus	2289-04-27 11:02 G	2557216.79	2557216.96	2557217.12	0.1860	0.0518
Mercury	2289-11-08 04:33 G	2557411.61	2557411.69	2557411.77	0.1835	0.1306
Mercury	2290-12-03 23:16 G	2557802.30	2557802.47	2557802.63	0.1709	0.0069
Mercury	2291-10-14 15:50 G	2558117.08	2558117.16	2558117.24	0.1806	0.1264
Venus	2293-12-08 21:35 G	2558903.25	2558903.40	2558903.56	0.1667	0.0749
Mercury	2300-04-25 22:48 G	2561232.31	2561232.45	2561232.58	0.1702	0.0949
Mercury	2301-03-07 01:26 G	2561547.45	2561547.56	2561547.66	0.1813	0.0675

Mercury	2310-07-28 10:33 G	2564977.82	2564977.94	2564978.06	0.1820	0.0051
Mercury	2319-12-18 19:40 G	2568408.21	2568408.32	2568408.43	0.1827	0.0588
Mercury	2321-01-13 00:43 G	2568799.39	2568799.53	2568799.67	0.1716	0.0937
Venus	2323-02-23 20:24 G	2569571.28	2569571.35	2569571.41	0.1844	0.1713
Venus	2327-10-08 12:14 G	2571258.85	2571259.01	2571259.17	0.1679	0.0545
Mercury	2329-05-10 04:33 G	2571838.61	2571838.69	2571838.78	0.1834	0.1240
Mercury	2330-06-05 00:00 G	2572229.33	2572229.50	2572229.67	0.1709	0.0026
Mercury	2331-04-15 15:50 G	2572544.08	2572544.16	2572544.24	0.1806	0.1329
Mercury	2339-10-25 23:31 G	2575659.34	2575659.48	2575659.62	0.1702	0.0854
Mercury	2340-09-05 01:11 G	2575974.45	2575974.55	2575974.66	0.1813	0.0727
Mercury	2350-01-26 10:33 G	2579404.82	2579404.94	2579405.05	0.1820	0.0114
Venus	2355-02-23 15:21 G	2581258.96	2581259.14	2581259.32	0.1857	0.0175
Mercury	2359-06-18 19:40 G	2582835.21	2582835.32	2582835.43	0.1827	0.0520
Venus	2359-10-07 09:07 G	2582945.72	2582945.88	2582946.05	0.1669	0.0606
Mercury	2360-07-14 01:26 G	2583226.43	2583226.56	2583226.69	0.1716	0.1028
Mercury	2368-11-08 04:33 G	2586265.60	2586265.69	2586265.78	0.1834	0.1180
Earth	2368-11-13 09:21 G	2586270.72	2586270.89	2586271.06	0.1826	0.0902
Moon	2368-11-13 12:57 G	2586270.87	2586271.04	2586271.21	0.1826	0.1090 *
Mercury	2369-12-04 00:28 G	2586656.35	2586656.52	2586656.69	0.1709	0.0110
Mercury	2370-10-14 15:50 G	2586971.09	2586971.16	2586971.23	0.1806	0.1389
Mercury	2379-04-26 00:14 G	2590086.37	2590086.51	2590086.66	0.1703	0.0758
Mercury	2380-03-06 01:11 G	2590401.45	2590401.55	2590401.66	0.1813	0.0792
Mercury	2388-09-15 00:14 G	2593516.46	2593516.51	2593516.56	0.1696	0.1609
Mercury	2389-07-27 10:33 G	2593831.83	2593831.94	2593832.06	0.1820	0.0177
Venus	2393-08-04 23:02 G	2595301.30	2595301.46	2595301.62	0.1681	0.0709
Earth	2394-05-10 14:38 G	2595580.04	2595580.11	2595580.19	0.1699	0.1547
Moon	2394-05-10 21:35 G	2595580.28	2595580.40	2595580.53	0.1700	0.1225
Mercury	2398-12-17 19:40 G	2597262.21	2597262.32	2597262.43	0.1827	0.0465
Mercury	2400-01-13 02:09 G	2597653.46	2597653.59	2597653.71	0.1716	0.1123
Mercury	2408-05-09 04:33 G	2600692.60	2600692.69	2600692.79	0.1834	0.1113

Mercury	2409-06-04 01:26 G	2601083.39	2601083.56	2601083.72	0.1709	0.0214
Mercury	2410-04-14 15:50 G	2601398.09	2601398.16	2601398.23	0.1806	0.1447
Mercury	2417-09-29 13:26 G	2604123.03	2604123.06	2604123.08	0.1841	0.1782
Mercury	2418-10-25 00:43 G	2604513.38	2604513.53	2604513.68	0.1702	0.0679
Mercury	2419-09-05 01:26 G	2604828.45	2604828.56	2604828.66	0.1813	0.0857
Venus	2420-12-20 19:40 G	2605301.14	2605301.32	2605301.49	0.1853	0.0178
Venus	2425-08-03 20:09 G	2606988.17	2606988.34	2606988.51	0.1672	0.0449
Mercury	2428-03-16 00:57 G	2607943.47	2607943.54	2607943.61	0.1696	0.1521
Mercury	2429-01-25 10:33 G	2608258.83	2608258.94	2608259.06	0.1820	0.0241
Mercury	2438-06-17 19:40 G	2611689.21	2611689.32	2611689.43	0.1827	0.0397
Mercury	2439-07-14 02:52 G	2612080.51	2612080.62	2612080.74	0.1716	0.1226
Mercury	2447-11-08 04:33 G	2615119.60	2615119.69	2615119.79	0.1834	0.1052
Earth	2447-11-17 07:26 G	2615128.67	2615128.81	2615128.95	0.1820	0.1248
Moon	2447-11-17 14:24 G	2615129.02	2615129.10	2615129.18	0.1820	0.1618
Mercury	2448-12-03 01:55 G	2615510.42	2615510.58	2615510.75	0.1709	0.0305
Mercury	2449-10-13 15:50 G	2615825.10	2615825.16	2615825.22	0.1806	0.1508
Venus	2452-12-20 16:04 G	2616989.13	2616989.17	2616989.22	0.1866	0.1796
Mercury	2457-03-30 13:26 G	2618550.02	2618550.06	2618550.09	0.1841	0.1722
Venus	2457-08-02 16:19 G	2618675.13	2618675.18	2618675.24	0.1663	0.1571
Mercury	2458-04-25 01:40 G	2618940.41	2618940.57	2618940.72	0.1703	0.0578
Mercury	2459-03-06 01:11 G	2619255.46	2619255.55	2619255.65	0.1813	0.0916
Venus	2459-06-02 09:50 G	2619343.77	2619343.91	2619344.06	0.1684	0.0876
Mercury	2467-09-15 01:26 G	2622370.48	2622370.56	2622370.65	0.1696	0.1434
Mercury	2468-07-26 10:33 G	2622685.82	2622685.94	2622686.05	0.1820	0.0298
Moon	2473-05-13 01:26 G	2624437.38	2624437.56	2624437.74	0.1704	0.0224
Earth	2473-05-13 01:55 G	2624437.39	2624437.58	2624437.77	0.1704	0.0003 *
Mercury	2477-12-16 19:40 G	2626116.21	2626116.32	2626116.44	0.1827	0.0337
Mercury	2479-01-12 03:21 G	2626507.54	2626507.64	2626507.75	0.1716	0.1309
Venus	2486-10-18 00:28 G	2629343.35	2629343.52	2629343.69	0.1849	0.0506
Mercury	2487-05-09 04:33 G	2629546.60	2629546.69	2629546.79	0.1834	0.0987

Mercury	2488-06-03 02:38 G	2629937.45	2629937.61	2629937.77	0.1710	0.0395
Mercury	2489-04-13 15:50 G	2630252.11	2630252.16	2630252.22	0.1805	0.1573
Venus	2491-06-01 07:40 G	2631030.65	2631030.82	2631030.99	0.1675	0.0301
Mercury	2496-09-28 13:26 G	2632977.01	2632977.06	2632977.11	0.1841	0.1655
Mercury	2497-10-24 02:09 G	2633367.44	2633367.59	2633367.75	0.1703	0.0490
Mercury	2498-09-04 01:11 G	2633682.45	2633682.55	2633682.65	0.1813	0.0972
Mercury	2507-03-17 02:09 G	2636797.49	2636797.59	2636797.69	0.1696	0.1344
Mercury	2508-01-26 10:33 G	2637112.83	2637112.94	2637113.06	0.1820	0.0366
Mercury	2517-06-17 19:40 G	2640543.21	2640543.32	2640543.44	0.1827	0.0273
Mercury	2518-07-14 04:19 G	2640934.59	2640934.68	2640934.78	0.1717	0.1415
Venus	2518-10-18 19:40 G	2641031.21	2641031.32	2641031.44	0.1862	0.1430
Venus	2523-06-01 03:35 G	2642717.57	2642717.65	2642717.74	0.1666	0.1426
Venus	2525-03-30 20:38 G	2643386.23	2643386.36	2643386.50	0.1687	0.1044
Mercury	2526-11-08 04:48 G	2643973.60	2643973.70	2643973.80	0.1834	0.0924
Mercury	2527-12-04 03:21 G	2644364.48	2644364.64	2644364.80	0.1710	0.0490
Mercury	2528-10-13 15:50 G	2644679.11	2644679.16	2644679.20	0.1806	0.1626
Mercury	2536-03-30 13:26 G	2647404.01	2647404.06	2647404.12	0.1840	0.1587
Mercury	2537-04-25 02:52 G	2647794.45	2647794.62	2647794.78	0.1703	0.0408
Mercury	2538-03-06 01:26 G	2648109.46	2648109.56	2648109.65	0.1812	0.1041
Mercury	2546-09-15 02:52 G	2651224.51	2651224.62	2651224.73	0.1697	0.1254
Mercury	2547-07-27 10:33 G	2651539.83	2651539.94	2651540.05	0.1819	0.0424
Earth	2552-05-16 13:26 G	2653294.99	2653295.06	2653295.14	0.1709	0.1558
Venus	2552-08-15 04:48 G	2653385.54	2653385.70	2653385.85	0.1845	0.0845
Mercury	2556-12-16 19:40 G	2654970.21	2654970.32	2654970.44	0.1827	0.0213
Venus	2557-03-29 18:14 G	2655073.09	2655073.26	2655073.43	0.1678	0.0137
Mercury	2558-01-12 05:02 G	2655361.64	2655361.71	2655361.79	0.1717	0.1510
Mercury	2566-05-09 04:48 G	2658400.59	2658400.70	2658400.80	0.1834	0.0861
Mercury	2567-06-04 04:04 G	2658791.52	2658791.67	2658791.83	0.1710	0.0584
Mercury	2568-04-13 15:50 G	2659106.12	2659106.16	2659106.20	0.1805	0.1690
Mercury	2575-09-29 13:26 G	2661831.00	2661831.06	2661831.12	0.1841	0.1531

Mercury	2576-10-24 03:35 G	2662221.49	2662221.65	2662221.81	0.1703	0.0307
Mercury	2577-09-04 01:11 G	2662536.46	2662536.55	2662536.64	0.1812	0.1094
Venus	2584-08-14 23:31 G	2665073.34	2665073.48	2665073.63	0.1858	0.1063
Mercury	2586-03-16 03:21 G	2665651.53	2665651.64	2665651.76	0.1696	0.1167
Mercury	2587-01-25 10:33 G	2665966.83	2665966.94	2665967.05	0.1820	0.0489
Venus	2589-03-28 14:52 G	2666760.01	2666760.12	2666760.23	0.1669	0.1278
Venus	2591-01-26 07:11 G	2667428.68	2667428.80	2667428.92	0.1690	0.1223
Mercury	2596-06-16 19:55 G	2669397.21	2669397.33	2669397.44	0.1826	0.0150
Mercury	2597-07-13 05:31 G	2669788.68	2669788.73	2669788.79	0.1717	0.1599
Mercury	2605-11-08 04:33 G	2672827.59	2672827.69	2672827.80	0.1834	0.0800
Mercury	2606-12-04 04:33 G	2673218.54	2673218.69	2673218.85	0.1710	0.0674
Mercury	2607-10-14 15:50 G	2673533.14	2673533.16	2673533.18	0.1805	0.1749
Mercury	2615-03-31 13:26 G	2676257.99	2676258.06	2676258.13	0.1840	0.1459
Mercury	2616-04-25 04:19 G	2676648.52	2676648.68	2676648.85	0.1703	0.0211
Mercury	2617-03-06 01:11 G	2676963.47	2676963.55	2676963.64	0.1812	0.1160
Venus	2618-06-13 09:35 G	2677427.76	2677427.90	2677428.03	0.1842	0.1173
Venus	2623-01-26 05:16 G	2679115.55	2679115.72	2679115.89	0.1680	0.0025
Mercury	2625-09-15 04:04 G	2680078.55	2680078.67	2680078.80	0.1697	0.1077
Mercury	2626-07-27 10:33 G	2680393.83	2680393.94	2680394.05	0.1819	0.0549
Mercury	2635-12-17 19:40 G	2683824.21	2683824.32	2683824.44	0.1827	0.0090
Mercury	2637-01-12 06:28 G	2684215.75	2684215.77	2684215.79	0.1717	0.1697
Mercury	2645-05-09 04:48 G	2687254.59	2687254.70	2687254.81	0.1834	0.0727
Mercury	2646-06-04 05:31 G	2687645.58	2687645.73	2687645.88	0.1710	0.0775
Venus	2650-06-13 03:35 G	2689115.49	2689115.65	2689115.82	0.1854	0.0712
Moon	2652-11-15 02:24 G	2690001.46	2690001.60	2690001.75	0.1835	0.1249
Earth	2652-11-15 11:02 G	2690001.79	2690001.96	2690002.13	0.1835	0.0890
Mercury	2654-09-29 13:40 G	2690684.99	2690685.07	2690685.14	0.1840	0.1396
Venus	2655-01-25 02:09 G	2690802.46	2690802.59	2690802.71	0.1671	0.1129
Mercury	2655-10-25 04:48 G	2691075.53	2691075.70	2691075.86	0.1703	0.0133
Mercury	2656-09-04 01:26 G	2691390.47	2691390.56	2691390.64	0.1812	0.1223

Venus	2656-11-23 18:14 G	2691471.16	2691471.26	2691471.35	0.1693	0.1389
Mercury	2665-03-16 04:48 G	2694505.57	2694505.70	2694505.83	0.1697	0.0986
Mercury	2666-01-25 10:33 G	2694820.83	2694820.94	2694821.05	0.1819	0.0612
Mercury	2675-06-17 19:40 G	2698251.21	2698251.32	2698251.44	0.1826	0.0075
Moon	2678-05-13 08:38 G	2699311.68	2699311.86	2699312.04	0.1693	0.0872
Earth	2678-05-13 08:09 G	2699311.69	2699311.84	2699311.98	0.1693	0.1110 *
Venus	2684-04-09 14:09 G	2701469.99	2701470.09	2701470.19	0.1838	0.1507
Mercury	2684-11-07 04:48 G	2701681.59	2701681.70	2701681.81	0.1833	0.0670
Mercury	2685-12-03 06:14 G	2702072.61	2702072.76	2702072.90	0.1710	0.0865
Venus	2688-11-22 16:04 G	2703158.00	2703158.17	2703158.34	0.1683	0.0185
Mercury	2694-03-30 13:26 G	2705111.98	2705112.06	2705112.14	0.1840	0.1334
Mercury	2695-04-25 05:45 G	2705502.57	2705502.74	2705502.90	0.1704	0.0058
Mercury	2696-03-05 01:11 G	2705817.47	2705817.55	2705817.63	0.1812	0.1279
Mercury	2704-09-15 05:16 G	2708932.59	2708932.72	2708932.86	0.1697	0.0901
Mercury	2705-07-27 10:33 G	2709247.83	2709247.94	2709248.05	0.1819	0.0672
Mercury	2714-12-17 19:55 G	2712678.21	2712678.33	2712678.44	0.1826	0.0056
Venus	2716-04-10 07:40 G	2713157.64	2713157.82	2713157.99	0.1850	0.0350
Venus	2720-11-22 13:11 G	2714844.92	2714845.05	2714845.19	0.1674	0.0980
Venus	2722-09-22 04:19 G	2715513.62	2715513.68	2715513.75	0.1696	0.1572
Mercury	2724-05-09 04:48 G	2716108.59	2716108.70	2716108.81	0.1833	0.0604
Mercury	2725-06-04 06:57 G	2716499.65	2716499.79	2716499.92	0.1711	0.0960
Moon	2731-11-20 07:11 G	2718859.67	2718859.80	2718859.94	0.1829	0.1401
Earth	2731-11-20 09:50 G	2718859.78	2718859.91	2718860.04	0.1828	0.1315 *
Mercury	2733-09-29 13:40 G	2719538.98	2719539.07	2719539.15	0.1840	0.1269
Mercury	2734-10-25 06:14 G	2719929.60	2719929.76	2719929.93	0.1704	0.0072
Mercury	2735-09-05 01:11 G	2720244.48	2720244.55	2720244.63	0.1812	0.1339
Mercury	2744-03-16 06:00 G	2723359.61	2723359.75	2723359.90	0.1697	0.0808
Mercury	2745-01-25 10:33 G	2723674.84	2723674.94	2723675.05	0.1819	0.0739
Venus	2750-02-05 18:43 G	2725512.28	2725512.28	2725512.28	0.1834	0.1833
Mercury	2753-08-06 06:28 G	2726789.73	2726789.77	2726789.80	0.1691	0.1637

Mercury	2754-06-17 19:40 G	2727105.21	2727105.32	2727105.44	0.1826	0.0128
Venus	2754-09-21 02:52 G	2727200.45	2727200.62	2727200.79	0.1686	0.0352
Earth	2757-05-16 18:00 G	2728169.06	2728169.25	2728169.44	0.1698	0.0396
Moon	2757-05-17 01:26 G	2728169.37	2728169.56	2728169.75	0.1698	0.0239 *
Mercury	2763-11-08 04:48 G	2730535.59	2730535.70	2730535.81	0.1833	0.0538
Mercury	2764-12-03 07:40 G	2730926.68	2730926.82	2730926.95	0.1710	0.1054
Mercury	2773-03-30 13:40 G	2733965.98	2733966.07	2733966.16	0.1840	0.1199
Mercury	2774-04-25 06:43 G	2734356.62	2734356.78	2734356.95	0.1704	0.0155
Mercury	2775-03-06 01:26 G	2734671.49	2734671.56	2734671.63	0.1812	0.1408
Venus	2782-02-05 12:28 G	2737199.84	2737200.02	2737200.19	0.1847	0.0033
Mercury	2783-09-15 06:43 G	2737786.64	2737786.78	2737786.93	0.1697	0.0715
Mercury	2784-07-26 10:33 G	2738101.84	2738101.94	2738102.05	0.1819	0.0798
Venus	2786-09-20 00:28 G	2738887.37	2738887.52	2738887.67	0.1676	0.0830
Mercury	2793-02-04 06:57 G	2741216.73	2741216.79	2741216.85	0.1691	0.1554
Mercury	2793-12-16 19:55 G	2741532.21	2741532.33	2741532.44	0.1826	0.0182
Mercury	2803-05-09 04:48 G	2744962.59	2744962.70	2744962.81	0.1833	0.0475
Mercury	2804-06-03 08:24 G	2745353.72	2745353.85	2745353.97	0.1711	0.1151
Mercury	2812-09-28 13:40 G	2748392.98	2748393.07	2748393.16	0.1840	0.1142
Mercury	2813-10-24 07:40 G	2748783.66	2748783.82	2748783.98	0.1704	0.0247
Mercury	2814-09-04 01:11 G	2749098.49	2749098.55	2749098.62	0.1812	0.1460
Venus	2820-07-18 13:26 G	2751242.90	2751243.06	2751243.23	0.1689	0.0522
Mercury	2822-02-18 22:19 G	2751823.42	2751823.43	2751823.45	0.1847	0.1814
Mercury	2823-03-16 07:26 G	2752213.66	2752213.81	2752213.96	0.1697	0.0629
Mercury	2824-01-25 10:33 G	2752528.84	2752528.94	2752529.05	0.1819	0.0862
Mercury	2832-08-05 07:26 G	2755643.74	2755643.81	2755643.89	0.1691	0.1470
Mercury	2833-06-16 19:55 G	2755959.22	2755959.33	2755959.45	0.1826	0.0237
Mercury	2842-11-07 04:48 G	2759389.59	2759389.70	2759389.81	0.1833	0.0415
Mercury	2843-12-03 08:52 G	2759780.76	2759780.87	2759780.99	0.1711	0.1242
Venus	2847-12-03 17:02 G	2761242.04	2761242.21	2761242.39	0.1843	0.0327
Mercury	2852-03-29 13:40 G	2762819.98	2762820.07	2762820.17	0.1840	0.1070

Venus	2852-07-17 11:31 G	2762929.82	2762929.98	2762930.13	0.1679	0.0671
Mercury	2853-04-24 08:24 G	2763210.69	2763210.85	2763211.01	0.1704	0.0344
Mercury	2854-03-05 01:11 G	2763525.49	2763525.55	2763525.61	0.1812	0.1526
Mercury	2861-08-19 22:19 G	2766250.40	2766250.43	2766250.46	0.1847	0.1758
Mercury	2862-09-14 08:09 G	2766640.68	2766640.84	2766640.99	0.1697	0.0537
Mercury	2863-07-26 10:33 G	2766955.85	2766955.94	2766956.04	0.1819	0.0922
Mercury	2872-02-04 08:09 G	2770070.75	2770070.84	2770070.94	0.1691	0.1377
Mercury	2872-12-15 19:40 G	2770386.21	2770386.32	2770386.44	0.1826	0.0301
Venus	2879-12-03 12:14 G	2772929.93	2772930.01	2772930.10	0.1856	0.1612
Mercury	2882-05-08 05:02 G	2773816.59	2773816.71	2773816.82	0.1833	0.0350
Mercury	2883-06-03 09:50 G	2774207.81	2774207.91	2774208.01	0.1711	0.1342
Venus	2886-05-16 00:14 G	2775285.35	2775285.51	2775285.67	0.1692	0.0694
Mercury	2891-09-28 13:40 G	2777246.97	2777247.07	2777247.17	0.1840	0.1008
Mercury	2892-10-23 08:52 G	2777637.71	2777637.87	2777638.03	0.1704	0.0423
Mercury	2893-09-03 01:26 G	2777952.50	2777952.56	2777952.61	0.1811	0.1590
Mercury	2901-02-18 22:19 G	2780677.39	2780677.43	2780677.48	0.1847	0.1688
Mercury	2902-03-16 08:52 G	2781067.71	2781067.87	2781068.03	0.1698	0.0443
Mercury	2903-01-25 10:33 G	2781382.85	2781382.94	2781383.04	0.1818	0.0985
Mercury	2911-08-06 08:52 G	2784497.77	2784497.87	2784497.98	0.1691	0.1285
Mercury	2912-06-16 19:55 G	2784813.22	2784813.33	2784813.44	0.1826	0.0362
Venus	2913-09-30 22:19 G	2785284.27	2785284.43	2785284.59	0.1839	0.0644
Venus	2918-05-15 22:48 G	2786972.28	2786972.45	2786972.61	0.1682	0.0518
Mercury	2921-11-07 04:48 G	2788243.59	2788243.70	2788243.82	0.1833	0.0287
Mercury	2922-12-03 10:19 G	2788634.84	2788634.93	2788635.02	0.1711	0.1434
Mercury	2931-03-30 13:40 G	2791673.97	2791674.07	2791674.17	0.1840	0.0944
Mercury	2932-04-24 09:50 G	2792064.75	2792064.91	2792065.07	0.1704	0.0529
Mercury	2933-03-05 01:11 G	2792379.51	2792379.55	2792379.60	0.1811	0.1645
Earth	2936-11-17 10:48 G	2793732.78	2793732.95	2793733.12	0.1843	0.0928
Moon	2936-11-17 15:07 G	2793732.98	2793733.13	2793733.29	0.1843	0.0924 *
Mercury	2940-08-19 22:33 G	2795104.38	2795104.44	2795104.49	0.1846	0.1619

Mercury	2941-09-14 09:21 G	2795494.73	2795494.89	2795495.05	0.1698	0.0356
Mercury	2942-07-26 10:48 G	2795809.85	2795809.95	2795810.04	0.1819	0.1048
Venus	2945-09-30 16:19 G	2796972.06	2796972.18	2796972.31	0.1852	0.1256
Venus	2950-05-14 19:26 G	2798659.31	2798659.31	2798659.31	0.1673	0.1672
Mercury	2951-02-04 09:21 G	2798924.78	2798924.89	2798925.01	0.1691	0.1205
Mercury	2951-12-16 19:55 G	2799240.22	2799240.33	2799240.44	0.1825	0.0427
Venus	2952-03-13 10:48 G	2799327.80	2799327.95	2799328.09	0.1695	0.0871
Mercury	2961-05-08 04:48 G	2802670.59	2802670.70	2802670.82	0.1833	0.0225
Moon	2962-05-15 20:24 G	2803043.17	2803043.35	2803043.53	0.1687	0.0520
Earth	2962-05-16 02:24 G	2803043.43	2803043.60	2803043.78	0.1687	0.0656 *
Mercury	2962-06-03 11:02 G	2803061.89	2803061.96	2803062.04	0.1711	0.1532
Mercury	2970-09-28 13:40 G	2806100.97	2806101.07	2806101.18	0.1839	0.0881
Mercury	2971-10-24 10:33 G	2806491.78	2806491.94	2806492.09	0.1704	0.0623
Mercury	2972-09-03 01:11 G	2806806.52	2806806.55	2806806.59	0.1811	0.1707
Venus	2979-07-29 03:07 G	2809326.49	2809326.63	2809326.78	0.1835	0.0974
Mercury	2980-02-18 22:19 G	2809531.37	2809531.43	2809531.50	0.1846	0.1559
Mercury	2981-03-15 10:04 G	2809921.76	2809921.92	2809922.09	0.1698	0.0262
Mercury	2982-01-24 10:48 G	2810236.86	2810236.95	2810237.04	0.1818	0.1109
Venus	2984-03-12 09:07 G	2811014.71	2811014.88	2811015.05	0.1685	0.0347
Mercury	2990-08-05 10:19 G	2813351.81	2813351.93	2813352.05	0.1691	0.1107
Mercury	2991-06-16 19:55 G	2813667.22	2813667.33	2813667.44	0.1826	0.0485
Mercury	3000-11-07 05:02 G	2817097.59	2817097.71	2817097.82	0.1833	0.0161

4TH MILLENNIUM CE

This is a list of transits visible from Mars in the 4th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	3001-12-03 11:45	G	2817488.95	2817488.99	2817489.04	0.1711	0.1626	
Mercury	3010-03-30 13:55	G	2820527.97	2820528.08	2820528.18	0.1839	0.0810	
Mercury	3011-04-25 11:02	G	2820918.81	2820918.96	2820919.11	0.1705	0.0708	
Venus	3011-07-29 20:38	G	2821014.21	2821014.36	2821014.51	0.1848	0.0899	
Mercury	3012-03-05 01:26	G	2821233.54	2821233.56	2821233.58	0.1811	0.1775	
Moon	3015-11-22 04:48	G	2822590.58	2822590.70	2822590.83	0.1837	0.1335	
Earth	3015-11-22 11:16	G	2822590.85	2822590.97	2822591.10	0.1837	0.1359	
Venus	3016-03-12 06:28	G	2822701.70	2822701.77	2822701.84	0.1676	0.1520	
Venus	3018-01-09 21:07	G	2823370.24	2823370.38	2823370.51	0.1698	0.1054	
Mercury	3019-08-20 22:33	G	2823958.37	2823958.44	2823958.50	0.1846	0.1492	
Mercury	3020-09-14 10:48	G	2824348.79	2824348.95	2824349.12	0.1698	0.0172	
Mercury	3021-07-26 10:48	G	2824663.86	2824663.95	2824664.03	0.1818	0.1170	
Mercury	3030-02-04 10:48	G	2827778.82	2827778.95	2827779.08	0.1691	0.1021	
Mercury	3030-12-16 19:55	G	2828094.22	2828094.33	2828094.44	0.1825	0.0549	
Mercury	3040-05-08 05:02	G	2831524.59	2831524.71	2831524.82	0.1832	0.0108	
Moon	3041-05-19 07:40	G	2831900.63	2831900.82	2831901.01	0.1691	0.0586	
Earth	3041-05-19 12:00	G	2831900.83	2831901.00	2831901.17	0.1692	0.0822	*
Venus	3045-05-26 08:24	G	2833368.73	2833368.85	2833368.97	0.1831	0.1291	
Mercury	3049-09-28 13:55	G	2834954.97	2834955.08	2834955.18	0.1840	0.0751	
Venus	3050-01-08 19:55	G	2835057.16	2835057.33	2835057.51	0.1688	0.0186	
Mercury	3050-10-24 12:00	G	2835345.85	2835346.00	2835346.14	0.1705	0.0811	
Mercury	3059-02-18 22:33	G	2838385.37	2838385.44	2838385.52	0.1846	0.1419	
Mercury	3060-03-15 11:31	G	2838775.81	2838775.98	2838776.14	0.1698	0.0093	
Mercury	3061-01-24 10:48	G	2839090.86	2839090.95	2839091.03	0.1818	0.1234	
Mercury	3069-08-05 11:31	G	2842205.84	2842205.98	2842206.12	0.1692	0.0932	
Mercury	3070-06-16 19:55	G	2842521.22	2842521.33	2842521.44	0.1825	0.0619	
Venus	3077-05-26 01:11	G	2845056.38	2845056.55	2845056.72	0.1844	0.0556	

Mercury	3079-11-07 05:02 G	2845951.59	2845951.71	2845951.82	0.1832	0.0065
Venus	3082-01-07 17:31 G	2846744.14	2846744.23	2846744.33	0.1678	0.1368
Venus	3083-11-07 07:55 G	2847412.71	2847412.83	2847412.95	0.1701	0.1229
Mercury	3089-03-29 13:55 G	2849381.97	2849382.08	2849382.19	0.1839	0.0680
Mercury	3090-04-24 12:43 G	2849772.89	2849773.03	2849773.17	0.1705	0.0907
Mercury	3098-08-19 22:33 G	2852812.36	2852812.44	2852812.52	0.1846	0.1362
Mercury	3099-09-14 12:14 G	2853202.84	2853203.01	2853203.17	0.1698	0.0018
Mercury	3100-07-26 10:48 G	2853517.87	2853517.95	2853518.03	0.1818	0.1294
Mercury	3109-02-04 12:14 G	2856632.87	2856633.01	2856633.15	0.1692	0.0839
Mercury	3109-12-16 19:55 G	2856948.22	2856948.33	2856948.44	0.1825	0.0674
Venus	3111-03-24 13:40 G	2857410.99	2857411.07	2857411.15	0.1827	0.1609
Venus	3115-11-07 06:43 G	2859099.61	2859099.78	2859099.95	0.1691	0.0018
Mercury	3118-06-27 12:43 G	2860063.01	2860063.03	2860063.05	0.1685	0.1663
Mercury	3119-05-09 05:02 G	2860378.60	2860378.71	2860378.83	0.1832	0.0053
Mercury	3128-09-28 13:55 G	2863808.97	2863809.08	2863809.19	0.1839	0.0617
Mercury	3129-10-24 13:11 G	2864199.91	2864200.05	2864200.18	0.1705	0.0990
Mercury	3138-02-18 22:33 G	2867239.36	2867239.44	2867239.53	0.1846	0.1290
Mercury	3139-03-16 12:57 G	2867629.88	2867630.04	2867630.21	0.1699	0.0113
Mercury	3140-01-25 10:48 G	2867944.87	2867944.95	2867945.02	0.1818	0.1357
Venus	3143-03-24 05:45 G	2869098.56	2869098.74	2869098.91	0.1840	0.0210
Venus	3147-11-06 04:48 G	2870786.58	2870786.70	2870786.81	0.1681	0.1212
Mercury	3148-08-05 12:57 G	2871059.89	2871060.04	2871060.19	0.1692	0.0746
Mercury	3149-06-16 19:55 G	2871375.23	2871375.33	2871375.44	0.1825	0.0744
Venus	3149-09-04 17:45 G	2871455.15	2871455.24	2871455.34	0.1704	0.1420
Mercury	3157-12-26 13:26 G	2874490.00	2874490.06	2874490.12	0.1686	0.1571
Mercury	3158-11-07 05:02 G	2874805.59	2874805.71	2874805.82	0.1832	0.0104
Earth	3167-05-16 13:40 G	2877918.01	2877918.07	2877918.14	0.1677	0.1579
Mercury	3168-03-29 13:55 G	2878235.97	2878236.08	2878236.19	0.1839	0.0552
Mercury	3169-04-24 14:09 G	2878626.96	2878627.09	2878627.21	0.1705	0.1098
Mercury	3177-08-19 22:48 G	2881666.36	2881666.45	2881666.53	0.1846	0.1222

Mercury	3178-09-14 13:26 G	2882056.90	2882057.06	2882057.23	0.1698	0.0204
Mercury	3179-07-26 10:48 G	2882371.88	2882371.95	2882372.02	0.1818	0.1421
Venus	3181-09-03 17:16 G	2883142.04	2883142.22	2883142.39	0.1694	0.0163
Mercury	3188-02-04 13:26 G	2885486.91	2885487.06	2885487.21	0.1692	0.0663
Mercury	3188-12-15 19:55 G	2885802.23	2885802.33	2885802.44	0.1825	0.0808
Mercury	3197-06-26 14:09 G	2888917.02	2888917.09	2888917.17	0.1686	0.1477
Mercury	3198-05-08 05:02 G	2889232.60	2889232.71	2889232.83	0.1832	0.0169
Mercury	3207-09-28 13:55 G	2892662.97	2892663.08	2892663.20	0.1839	0.0489
Mercury	3208-10-23 14:52 G	2893054.00	2893054.12	2893054.23	0.1705	0.1192
Venus	3209-01-18 11:16 G	2893140.79	2893140.97	2893141.14	0.1836	0.0110
Venus	3213-09-02 15:35 G	2894829.02	2894829.15	2894829.29	0.1684	0.1057
Venus	3215-07-03 04:19 G	2895497.63	2895497.68	2895497.74	0.1708	0.1605
Mercury	3217-02-17 22:48 G	2896093.36	2896093.45	2896093.54	0.1846	0.1161
Mercury	3218-03-15 14:24 G	2896483.93	2896484.10	2896484.26	0.1699	0.0299
Mercury	3219-01-24 10:48 G	2896798.88	2896798.95	2896799.01	0.1818	0.1481
Earth	3220-11-19 10:04 G	2897463.75	2897463.92	2897464.08	0.1851	0.0980
Moon	3220-11-19 13:55 G	2897463.90	2897464.08	2897464.27	0.1851	0.0864 *
Mercury	3226-07-11 07:11 G	2899523.80	2899523.80	2899523.80	0.1853	0.1851
Mercury	3227-08-05 14:24 G	2899913.94	2899914.10	2899914.25	0.1692	0.0565
Mercury	3228-06-15 19:55 G	2900229.23	2900229.33	2900229.43	0.1825	0.0867
Mercury	3236-12-25 14:38 G	2903344.02	2903344.11	2903344.20	0.1686	0.1399
Mercury	3237-11-06 05:02 G	2903659.60	2903659.71	2903659.83	0.1832	0.0247
Venus	3241-01-18 05:16 G	2904828.69	2904828.72	2904828.76	0.1850	0.1808
Earth	3246-05-18 22:33 G	2906775.25	2906775.44	2906775.63	0.1682	0.0174
Moon	3246-05-19 03:21 G	2906775.45	2906775.64	2906775.82	0.1682	0.0088 *
Mercury	3247-03-29 14:09 G	2907089.97	2907090.09	2907090.20	0.1839	0.0419
Venus	3247-07-02 03:50 G	2907184.49	2907184.66	2907184.83	0.1697	0.0335
Mercury	3248-04-23 15:21 G	2907481.03	2907481.14	2907481.25	0.1705	0.1280
Mercury	3256-08-18 22:48 G	2910520.35	2910520.45	2910520.54	0.1846	0.1093
Mercury	3257-09-13 15:07 G	2910910.97	2910911.13	2910911.29	0.1699	0.0394

Mercury	3258-07-25 10:48 G	2911225.89	2911225.95	2911226.01	0.1817	0.1542
Mercury	3266-01-09 07:11 G	2913950.78	2913950.80	2913950.83	0.1852	0.1786
Mercury	3267-02-03 14:52 G	2914340.97	2914341.12	2914341.28	0.1692	0.0476
Mercury	3267-12-15 19:55 G	2914656.24	2914656.33	2914656.43	0.1825	0.0934
Venus	3274-11-15 16:19 G	2917183.01	2917183.18	2917183.35	0.1832	0.0437
Mercury	3276-06-25 15:35 G	2917771.04	2917771.15	2917771.25	0.1686	0.1300
Mercury	3277-05-07 05:02 G	2918086.60	2918086.71	2918086.83	0.1832	0.0305
Venus	3279-07-01 02:38 G	2918871.46	2918871.61	2918871.75	0.1687	0.0893
Mercury	3286-09-27 14:09 G	2921516.97	2921517.09	2921517.20	0.1839	0.0361
Mercury	3287-10-23 16:04 G	2921908.08	2921908.17	2921908.27	0.1706	0.1384
Mercury	3296-02-17 22:48 G	2924947.36	2924947.45	2924947.55	0.1845	0.1022
Mercury	3297-03-14 15:35 G	2925337.99	2925338.15	2925338.31	0.1699	0.0478
Mercury	3298-01-23 10:48 G	2925652.90	2925652.95	2925653.00	0.1818	0.1610
Earth	3299-11-23 11:31 G	2926321.85	2926321.98	2926322.11	0.1845	0.1378
Moon	3299-11-23 19:26 G	2926322.19	2926322.31	2926322.43	0.1844	0.1416
Mercury	3305-07-11 07:11 G	2928377.76	2928377.80	2928377.85	0.1852	0.1720
Mercury	3306-08-05 15:35 G	2928767.99	2928768.15	2928768.31	0.1693	0.0383
Venus	3306-11-16 10:04 G	2928870.82	2928870.92	2928871.03	0.1846	0.1464
Mercury	3307-06-16 20:09 G	2929083.24	2929083.34	2929083.43	0.1824	0.0998
Venus	3313-04-29 14:09 G	2931226.93	2931227.09	2931227.26	0.1700	0.0516
Mercury	3315-12-26 16:04 G	2932198.06	2932198.17	2932198.29	0.1686	0.1212
Mercury	3316-11-06 05:02 G	2932513.60	2932513.71	2932513.83	0.1832	0.0365
Moon	3325-05-22 04:19 G	2935632.55	2935632.68	2935632.81	0.1686	0.1116
Earth	3325-05-22 06:57 G	2935632.67	2935632.79	2935632.92	0.1686	0.1268 *
Mercury	3326-03-29 14:09 G	2935943.98	2935944.09	2935944.21	0.1838	0.0287
Mercury	3327-04-24 17:02 G	2936335.13	2936335.21	2936335.29	0.1706	0.1481
Mercury	3335-08-19 22:48 G	2939374.35	2939374.45	2939374.55	0.1846	0.0963
Mercury	3336-09-13 16:33 G	2939765.03	2939765.19	2939765.34	0.1699	0.0582
Mercury	3337-07-25 10:48 G	2940079.91	2940079.95	2940079.99	0.1817	0.1669
Venus	3340-09-12 22:04 G	2941225.26	2941225.42	2941225.58	0.1829	0.0743

Mercury	3345-01-09 07:26 G	2942804.76	2942804.81	2942804.86	0.1852	0.1646
Venus	3345-04-28 13:40 G	2942913.91	2942914.07	2942914.22	0.1690	0.0734
Mercury	3346-02-03 16:19 G	2943195.02	2943195.18	2943195.34	0.1692	0.0291
Mercury	3346-12-15 20:09 G	2943510.24	2943510.34	2943510.43	0.1825	0.1058
Mercury	3355-06-26 16:33 G	2946625.07	2946625.19	2946625.31	0.1686	0.1130
Mercury	3356-05-07 05:16 G	2946940.61	2946940.72	2946940.83	0.1831	0.0432
Mercury	3365-09-27 14:09 G	2950370.97	2950371.09	2950371.21	0.1838	0.0224
Mercury	3366-10-23 17:31 G	2950762.17	2950762.23	2950762.29	0.1706	0.1569
Venus	3372-09-12 14:52 G	2952912.98	2952913.12	2952913.26	0.1842	0.1121
Mercury	3375-02-17 23:02 G	2953801.35	2953801.46	2953801.56	0.1845	0.0891
Mercury	3376-03-14 17:16 G	2954192.07	2954192.22	2954192.37	0.1699	0.0677
Mercury	3377-01-23 10:48 G	2954506.92	2954506.95	2954506.98	0.1817	0.1732
Venus	3379-02-25 00:43 G	2955269.37	2955269.53	2955269.68	0.1703	0.0697
Mercury	3384-07-10 07:26 G	2957231.75	2957231.81	2957231.87	0.1852	0.1584
Mercury	3385-08-04 17:02 G	2957622.05	2957622.21	2957622.38	0.1693	0.0197
Mercury	3386-06-15 20:09 G	2957937.25	2957937.34	2957937.43	0.1824	0.1124
Mercury	3394-12-25 17:31 G	2961052.10	2961052.23	2961052.36	0.1686	0.1034
Mercury	3395-11-06 05:16 G	2961367.60	2961367.72	2961367.83	0.1831	0.0491
Mercury	3405-03-29 14:09 G	2964797.98	2964798.09	2964798.21	0.1838	0.0163
Mercury	3406-04-24 18:28 G	2965189.24	2965189.27	2965189.30	0.1706	0.1676
Venus	3406-07-12 03:35 G	2965267.50	2965267.65	2965267.79	0.1825	0.1062
Venus	3411-02-24 23:45 G	2966956.33	2966956.49	2966956.66	0.1693	0.0560
Mercury	3414-08-19 23:02 G	2968228.35	2968228.46	2968228.56	0.1845	0.0822
Mercury	3415-09-14 17:45 G	2968619.09	2968619.24	2968619.39	0.1699	0.0763
Mercury	3416-07-25 10:48 G	2968933.94	2968933.95	2968933.97	0.1817	0.1798
Mercury	3424-01-10 07:26 G	2971658.75	2971658.81	2971658.88	0.1852	0.1516
Mercury	3425-02-03 17:45 G	2972049.07	2972049.24	2972049.40	0.1693	0.0115
Mercury	3425-12-15 20:09 G	2972364.25	2972364.34	2972364.43	0.1824	0.1186
Mercury	3434-06-26 18:14 G	2975479.12	2975479.26	2975479.40	0.1687	0.0938
Mercury	3435-05-08 05:16 G	2975794.61	2975794.72	2975794.83	0.1831	0.0558

Venus	3438-07-11 19:40 G	2976955.16	2976955.32	2976955.48	0.1838	0.0776
Mercury	3444-09-27 14:09 G	2979224.98	2979225.09	2979225.21	0.1838	0.0111
Venus	3444-12-23 10:48 G	2979311.81	2979311.95	2979312.10	0.1706	0.0884
Moon	3451-05-19 05:31 G	2981649.61	2981649.73	2981649.86	0.1671	0.1285
Earth	3451-05-19 11:31 G	2981649.83	2981649.98	2981650.13	0.1672	0.1065 *
Mercury	3454-02-17 23:02 G	2982655.35	2982655.46	2982655.56	0.1845	0.0762
Mercury	3455-03-15 18:28 G	2983046.13	2983046.27	2983046.42	0.1700	0.0863
Mercury	3463-07-11 07:40 G	2986085.75	2986085.82	2986085.89	0.1852	0.1444
Mercury	3464-08-04 18:28 G	2986476.11	2986476.27	2986476.44	0.1693	0.0015
Mercury	3465-06-15 20:09 G	2986791.26	2986791.34	2986791.42	0.1824	0.1249
Venus	3472-05-08 09:21 G	2989309.77	2989309.89	2989310.00	0.1821	0.1370
Mercury	3473-12-25 18:43 G	2989906.14	2989906.28	2989906.42	0.1687	0.0860
Mercury	3474-11-06 05:16 G	2990221.62	2990221.72	2990221.83	0.1831	0.0629
Venus	3476-12-22 10:48 G	2990998.78	2990998.95	2990999.12	0.1696	0.0394
Mercury	3483-05-17 19:40 G	2993336.29	2993336.32	2993336.34	0.1681	0.1659
Mercury	3484-03-28 14:24 G	2993651.98	2993652.10	2993652.21	0.1838	0.0073
Mercury	3493-08-18 23:02 G	2997082.35	2997082.46	2997082.57	0.1845	0.0692
Mercury	3494-09-13 19:26 G	2997473.17	2997473.31	2997473.44	0.1700	0.0964
Mercury	3503-01-10 07:40 G	3000512.74	3000512.82	3000512.90	0.1852	0.1380
Mercury	3504-02-04 19:11 G	3000903.13	3000903.30	3000903.46	0.1693	0.0084
Venus	3504-05-09 00:43 G	3000997.36	3000997.53	3000997.70	0.1834	0.0443
Moon	3504-11-22 00:00 G	3001194.34	3001194.50	3001194.66	0.1859	0.1027
Earth	3504-11-22 08:24 G	3001194.69	3001194.85	3001195.01	0.1859	0.1056
Mercury	3504-12-15 20:09 G	3001218.26	3001218.34	3001218.42	0.1824	0.1314
Venus	3508-12-22 09:07 G	3002685.83	3002685.88	3002685.93	0.1685	0.1611
Venus	3510-10-21 21:35 G	3003354.26	3003354.40	3003354.53	0.1710	0.1067
Mercury	3513-06-26 19:26 G	3004333.17	3004333.31	3004333.46	0.1687	0.0760
Mercury	3514-05-08 05:16 G	3004648.61	3004648.72	3004648.83	0.1831	0.0686
Mercury	3522-11-16 20:09 G	3007763.29	3007763.34	3007763.39	0.1681	0.1577
Mercury	3523-09-28 14:24 G	3008078.98	3008079.10	3008079.21	0.1838	0.0062

Earth	3530-05-22 19:55 G	3010507.14	3010507.33	3010507.52	0.1676	0.0330
Moon	3530-05-22 23:16 G	3010507.27	3010507.47	3010507.66	0.1676	0.0517 *
Mercury	3533-02-17 23:16 G	3011509.36	3011509.47	3011509.58	0.1845	0.0622
Mercury	3534-03-15 19:55 G	3011900.20	3011900.33	3011900.46	0.1700	0.1048
Venus	3538-03-06 14:52 G	3013352.06	3013352.12	3013352.19	0.1817	0.1675
Mercury	3542-07-11 07:40 G	3014939.74	3014939.82	3014939.90	0.1852	0.1313
Venus	3542-10-20 21:07 G	3015041.21	3015041.38	3015041.55	0.1699	0.0216
Mercury	3543-08-05 19:55 G	3015330.16	3015330.33	3015330.49	0.1693	0.0177
Mercury	3544-06-15 20:09 G	3015645.27	3015645.34	3015645.42	0.1824	0.1381
Mercury	3552-12-25 20:09 G	3018760.19	3018760.34	3018760.49	0.1687	0.0670
Mercury	3553-11-06 05:16 G	3019075.62	3019075.72	3019075.83	0.1831	0.0751
Mercury	3562-05-17 20:52 G	3022190.30	3022190.37	3022190.45	0.1681	0.1481
Mercury	3563-03-29 14:24 G	3022505.98	3022506.10	3022506.22	0.1838	0.0108
Venus	3570-03-06 05:45 G	3025039.56	3025039.74	3025039.91	0.1830	0.0117
Mercury	3572-08-18 23:02 G	3025936.35	3025936.46	3025936.57	0.1845	0.0563
Mercury	3573-09-13 20:52 G	3026327.25	3026327.37	3026327.49	0.1700	0.1153
Venus	3574-10-19 19:55 G	3026728.24	3026728.33	3026728.42	0.1689	0.1449
Venus	3576-08-18 07:11 G	3027396.69	3027396.80	3027396.92	0.1713	0.1266
Mercury	3582-01-09 07:55 G	3029366.74	3029366.83	3029366.91	0.1852	0.1241
Mercury	3583-02-03 20:24 G	3029757.19	3029757.35	3029757.52	0.1693	0.0269
Moon	3583-11-26 09:07 G	3030052.71	3030052.88	3030053.04	0.1853	0.1135
Earth	3583-11-26 11:02 G	3030052.83	3030052.96	3030053.09	0.1853	0.1379 *
Mercury	3583-12-15 20:09 G	3030072.27	3030072.34	3030072.41	0.1824	0.1438
Mercury	3592-06-25 20:38 G	3033187.21	3033187.36	3033187.52	0.1687	0.0586
Mercury	3593-05-07 05:31 G	3033502.63	3033502.73	3033502.83	0.1831	0.0822
Mercury	3601-11-15 21:35 G	3036617.31	3036617.40	3036617.49	0.1681	0.1393
Mercury	3602-09-27 14:24 G	3036932.98	3036933.10	3036933.21	0.1838	0.0171
Venus	3608-08-17 07:26 G	3039083.64	3039083.81	3039083.98	0.1702	0.0038
Mercury	3612-02-17 23:16 G	3040363.36	3040363.47	3040363.58	0.1845	0.0489
Mercury	3613-03-14 21:35 G	3040754.28	3040754.40	3040754.51	0.1700	0.1248

Mercury	3621-07-10 07:40 G	3043793.74	3043793.82	3043793.91	0.1851	0.1181
Mercury	3622-08-04 21:21 G	3044184.23	3044184.39	3044184.55	0.1694	0.0365
Mercury	3623-06-15 20:24 G	3044499.28	3044499.35	3044499.41	0.1823	0.1507
Mercury	3631-12-25 21:35 G	3047614.24	3047614.40	3047614.56	0.1687	0.0486
Mercury	3632-11-05 05:16 G	3047929.62	3047929.72	3047929.83	0.1831	0.0881
Venus	3636-01-01 11:45 G	3049081.82	3049081.99	3049082.16	0.1826	0.0199
Venus	3640-08-16 06:43 G	3050770.67	3050770.78	3050770.89	0.1691	0.1288
Mercury	3641-05-16 22:04 G	3051044.32	3051044.42	3051044.52	0.1681	0.1309
Mercury	3642-03-28 14:24 G	3051359.99	3051360.10	3051360.22	0.1838	0.0248
Venus	3642-06-15 17:31 G	3051439.14	3051439.23	3051439.32	0.1716	0.1459
Mercury	3651-08-18 23:16 G	3054790.36	3054790.47	3054790.58	0.1844	0.0423
Mercury	3652-09-12 22:04 G	3055181.32	3055181.42	3055181.52	0.1700	0.1335
Moon	3656-05-18 08:09 G	3056524.82	3056524.84	3056524.86	0.1663	0.1647
Mercury	3661-01-08 07:55 G	3058220.73	3058220.83	3058220.92	0.1851	0.1110
Mercury	3662-02-02 21:50 G	3058611.26	3058611.41	3058611.57	0.1694	0.0457
Mercury	3662-12-14 20:24 G	3058926.29	3058926.35	3058926.40	0.1823	0.1569
Venus	3668-01-01 04:33 G	3060769.62	3060769.69	3060769.75	0.1840	0.1681
Mercury	3670-05-31 16:19 G	3061651.16	3061651.18	3061651.20	0.1858	0.1810
Mercury	3671-06-25 22:19 G	3062041.27	3062041.43	3062041.59	0.1687	0.0392
Mercury	3672-05-06 05:31 G	3062356.63	3062356.73	3062356.83	0.1830	0.0948
Venus	3674-06-14 18:00 G	3063126.07	3063126.25	3063126.42	0.1705	0.0153
Mercury	3680-11-14 22:48 G	3065471.34	3065471.45	3065471.56	0.1681	0.1218
Mercury	3681-09-26 14:24 G	3065786.99	3065787.10	3065787.22	0.1837	0.0304
Mercury	3691-02-16 23:16 G	3069217.36	3069217.47	3069217.58	0.1845	0.0360
Mercury	3692-03-13 22:48 G	3069608.37	3069608.45	3069608.54	0.1700	0.1439
Mercury	3700-07-10 07:55 G	3072647.74	3072647.83	3072647.93	0.1851	0.1039
Mercury	3701-08-04 22:48 G	3073038.29	3073038.45	3073038.60	0.1694	0.0553
Venus	3701-10-29 17:02 G	3073124.04	3073124.21	3073124.38	0.1822	0.0519
Mercury	3702-06-15 20:24 G	3073353.30	3073353.35	3073353.40	0.1823	0.1633
Venus	3706-06-14 17:31 G	3074813.10	3074813.23	3074813.36	0.1694	0.1118

Venus	3708-04-13 03:07 G	3075481.59	3075481.63	3075481.67	0.1720	0.1665
Mercury	3709-11-30 16:19 G	3076078.14	3076078.18	3076078.22	0.1858	0.1745
Mercury	3710-12-25 22:48 G	3076468.29	3076468.45	3076468.61	0.1687	0.0313
Mercury	3711-11-06 05:31 G	3076783.64	3076783.73	3076783.83	0.1830	0.1014
Mercury	3720-05-16 23:31 G	3079898.36	3079898.48	3079898.60	0.1682	0.1124
Mercury	3721-03-28 14:24 G	3080213.99	3080214.10	3080214.22	0.1837	0.0376
Mercury	3730-08-18 23:16 G	3083644.36	3083644.47	3083644.59	0.1844	0.0294
Mercury	3731-09-13 23:45 G	3084035.42	3084035.49	3084035.56	0.1701	0.1540
Venus	3733-10-29 09:35 G	3084811.78	3084811.90	3084812.01	0.1836	0.1345
Moon	3735-05-22 06:57 G	3085381.63	3085381.79	3085381.96	0.1666	0.0741
Earth	3735-05-22 10:04 G	3085381.74	3085381.92	3085382.10	0.1667	0.0541 *
Mercury	3740-01-09 07:55 G	3087074.73	3087074.83	3087074.93	0.1851	0.0976
Venus	3740-04-12 03:50 G	3087168.49	3087168.66	3087168.83	0.1709	0.0338
Mercury	3741-02-02 23:16 G	3087465.32	3087465.47	3087465.63	0.1694	0.0644
Mercury	3741-12-14 20:24 G	3087780.31	3087780.35	3087780.39	0.1823	0.1695
Mercury	3749-05-31 16:19 G	3090505.13	3090505.18	3090505.23	0.1858	0.1677
Mercury	3750-06-25 23:31 G	3090895.32	3090895.48	3090895.65	0.1688	0.0215
Mercury	3751-05-07 05:31 G	3091210.64	3091210.73	3091210.82	0.1830	0.1073
Mercury	3759-11-16 00:00 G	3094325.38	3094325.50	3094325.63	0.1681	0.1043
Mercury	3760-09-26 14:38 G	3094640.99	3094641.11	3094641.22	0.1837	0.0440
Venus	3767-08-26 23:31 G	3097166.32	3097166.48	3097166.63	0.1818	0.0815
Mercury	3770-02-16 23:31 G	3098071.36	3098071.48	3098071.59	0.1844	0.0222
Mercury	3771-03-15 00:14 G	3098462.46	3098462.51	3098462.55	0.1701	0.1622
Venus	3772-04-11 04:04 G	3098855.53	3098855.67	3098855.81	0.1698	0.0948
Mercury	3779-07-10 07:55 G	3101501.73	3101501.83	3101501.93	0.1851	0.0910
Mercury	3780-08-04 00:00 G	3101892.36	3101892.50	3101892.65	0.1694	0.0742
Mercury	3781-06-14 20:24 G	3102207.32	3102207.35	3102207.38	0.1823	0.1759
Earth	3788-11-23 03:35 G	3104925.51	3104925.65	3104925.80	0.1867	0.1215
Moon	3788-11-23 09:50 G	3104925.74	3104925.91	3104926.07	0.1867	0.0818 *
Mercury	3788-11-29 16:19 G	3104932.13	3104932.18	3104932.24	0.1858	0.1611

Mercury	3789-12-25 00:14 G	3105322.35	3105322.51	3105322.68	0.1688	0.0121
Mercury	3790-11-05 05:31 G	3105637.64	3105637.73	3105637.82	0.1830	0.1138
Mercury	3799-05-17 00:57 G	3108752.40	3108752.54	3108752.67	0.1682	0.0946
Venus	3799-08-26 14:52 G	3108853.97	3108854.12	3108854.26	0.1832	0.1014
Mercury	3800-03-28 14:38 G	3109068.00	3109068.11	3109068.22	0.1837	0.0502
Venus	3806-02-08 14:09 G	3111210.92	3111211.09	3111211.25	0.1712	0.0529
Mercury	3809-08-18 23:16 G	3112498.36	3112498.47	3112498.59	0.1844	0.0172
Moon	3814-05-25 10:33 G	3114238.77	3114238.94	3114239.10	0.1670	0.0825
Earth	3814-05-25 17:45 G	3114239.07	3114239.24	3114239.40	0.1671	0.0832 *
Mercury	3819-01-09 08:09 G	3115928.74	3115928.84	3115928.94	0.1851	0.0835
Mercury	3820-02-04 00:43 G	3116319.39	3116319.53	3116319.67	0.1694	0.0829
Mercury	3820-12-14 20:24 G	3116634.34	3116634.35	3116634.35	0.1823	0.1820
Mercury	3828-05-31 16:33 G	3119359.12	3119359.19	3119359.25	0.1857	0.1539
Mercury	3829-06-26 00:57 G	3119749.37	3119749.54	3119749.70	0.1688	0.0051
Mercury	3830-05-07 05:45 G	3120064.65	3120064.74	3120064.82	0.1830	0.1210
Venus	3833-06-24 05:02 G	3121208.57	3121208.71	3121208.85	0.1814	0.1124
Venus	3838-02-07 14:09 G	3122897.94	3122898.09	3122898.25	0.1701	0.0767
Mercury	3838-11-16 01:26 G	3123179.42	3123179.56	3123179.70	0.1682	0.0857
Mercury	3839-09-27 14:38 G	3123495.00	3123495.11	3123495.22	0.1837	0.0565
Mercury	3848-04-07 02:24 G	3126609.58	3126609.60	3126609.62	0.1676	0.1658
Mercury	3849-02-16 23:31 G	3126925.36	3126925.48	3126925.60	0.1844	0.0090
Mercury	3858-07-10 08:09 G	3130355.73	3130355.84	3130355.94	0.1851	0.0776
Mercury	3859-08-05 01:26 G	3130746.43	3130746.56	3130746.70	0.1694	0.0932
Venus	3865-06-23 19:40 G	3132896.16	3132896.32	3132896.48	0.1828	0.0675
Moon	3867-11-28 03:35 G	3133783.50	3133783.65	3133783.81	0.1862	0.0975
Earth	3867-11-28 08:52 G	3133783.73	3133783.87	3133784.00	0.1861	0.1331 *
Mercury	3867-11-30 16:33 G	3133786.12	3133786.19	3133786.26	0.1858	0.1474
Mercury	3868-12-25 01:40 G	3134176.40	3134176.57	3134176.73	0.1688	0.0067
Mercury	3869-11-05 05:31 G	3134491.65	3134491.73	3134491.81	0.1830	0.1265
Venus	3871-12-07 00:00 G	3135253.35	3135253.50	3135253.66	0.1715	0.0724

Mercury	3878-05-17 01:55 G	3137606.44	3137606.58	3137606.73	0.1682	0.0775
Mercury	3879-03-28 14:38 G	3137922.00	3137922.11	3137922.22	0.1837	0.0635
Mercury	3887-10-07 03:07 G	3141036.57	3141036.63	3141036.68	0.1676	0.1573
Mercury	3888-08-17 23:31 G	3141352.36	3141352.48	3141352.60	0.1844	0.0030
Mercury	3898-01-08 08:09 G	3144782.73	3144782.84	3144782.95	0.1851	0.0705
Mercury	3899-02-03 02:09 G	3145173.46	3145173.59	3145173.72	0.1695	0.1023
Venus	3899-04-21 11:16 G	3145250.86	3145250.97	3145251.07	0.1810	0.1423
Venus	3903-12-07 00:43 G	3146940.37	3146940.53	3146940.70	0.1704	0.0595
Mercury	3907-06-01 16:33 G	3148213.12	3148213.19	3148213.27	0.1857	0.1403
Mercury	3908-06-26 02:24 G	3148603.43	3148603.60	3148603.76	0.1688	0.0160
Mercury	3909-05-07 05:31 G	3148918.66	3148918.73	3148918.81	0.1830	0.1336
Mercury	3917-11-16 02:52 G	3152033.47	3152033.62	3152033.77	0.1682	0.0680
Mercury	3918-09-27 14:38 G	3152349.00	3152349.11	3152349.22	0.1837	0.0694
Mercury	3927-04-08 03:50 G	3155463.58	3155463.66	3155463.73	0.1676	0.1482
Mercury	3928-02-17 23:31 G	3155779.36	3155779.48	3155779.60	0.1844	0.0040
Venus	3931-04-22 01:11 G	3156938.38	3156938.55	3156938.73	0.1824	0.0353
Mercury	3937-07-10 08:24 G	3159209.74	3159209.85	3159209.96	0.1851	0.0636
Venus	3937-10-04 10:19 G	3159295.78	3159295.93	3159296.07	0.1718	0.0916
Mercury	3938-08-05 02:52 G	3159600.50	3159600.62	3159600.74	0.1695	0.1116
Earth	3940-05-22 03:07 G	3160256.52	3160256.63	3160256.75	0.1658	0.1332
Moon	3940-05-22 05:16 G	3160256.58	3160256.72	3160256.87	0.1658	0.1151 *
Mercury	3946-11-30 16:33 G	3162640.11	3162640.19	3162640.27	0.1857	0.1339
Mercury	3947-12-26 02:52 G	3163030.45	3163030.62	3163030.78	0.1688	0.0243
Mercury	3948-11-05 05:45 G	3163345.66	3163345.74	3163345.81	0.1829	0.1399
Mercury	3957-05-17 03:35 G	3166460.50	3166460.65	3166460.80	0.1682	0.0584
Mercury	3958-03-28 14:38 G	3166776.01	3166776.11	3166776.22	0.1837	0.0761
Venus	3965-02-16 17:16 G	3169293.17	3169293.22	3169293.27	0.1806	0.1721
Mercury	3966-10-07 04:19 G	3169890.59	3169890.68	3169890.77	0.1676	0.1395
Mercury	3967-08-18 23:31 G	3170206.37	3170206.48	3170206.60	0.1844	0.0122
Venus	3969-10-03 10:48 G	3170982.78	3170982.95	3170983.12	0.1707	0.0406

Mercury	3977-01-08 08:09 G	3173636.73	3173636.84	3173636.95	0.1851	0.0575
Mercury	3978-02-03 03:35 G	3174027.53	3174027.65	3174027.76	0.1695	0.1209
Mercury	3986-05-31 16:48 G	3177067.11	3177067.20	3177067.28	0.1858	0.1269
Mercury	3987-06-26 03:35 G	3177457.49	3177457.65	3177457.82	0.1688	0.0348
Mercury	3988-05-06 05:31 G	3177772.67	3177772.73	3177772.80	0.1830	0.1460
Mercury	3996-11-15 04:04 G	3180887.51	3180887.67	3180887.82	0.1682	0.0506
Venus	3997-02-16 06:28 G	3180980.60	3180980.77	3180980.95	0.1820	0.0036
Mercury	3997-09-26 14:38 G	3181203.01	3181203.11	3181203.22	0.1837	0.0831

5TH MILLENNIUM CE

This is a list of transits visible from Mars in the 5th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	4001-10-02 10:19 G		3182669.91	3182669.93	3182669.95	0.1696	0.1674	
Venus	4003-08-01 19:40 G		3183338.19	3183338.32	3183338.45	0.1722	0.1126	
Mercury	4006-04-07 05:02 G		3184317.61	3184317.71	3184317.81	0.1676	0.1309	
Mercury	4007-02-16 23:45 G		3184633.37	3184633.49	3184633.60	0.1843	0.0185	
Mercury	4016-07-09 08:09 G		3188063.73	3188063.84	3188063.96	0.1851	0.0510	
Mercury	4017-08-04 04:19 G		3188454.58	3188454.68	3188454.78	0.1695	0.1310	
Earth	4019-05-25 08:24 G		3189113.66	3189113.85	3189114.04	0.1662	0.0028	
Moon	4019-05-25 15:07 G		3189113.94	3189114.13	3189114.32	0.1662	0.0071	*
Mercury	4025-11-29 16:48 G		3191494.11	3191494.20	3191494.29	0.1857	0.1202	
Mercury	4026-12-25 04:19 G		3191884.52	3191884.68	3191884.84	0.1688	0.0434	
Mercury	4027-11-05 05:45 G		3192199.67	3192199.74	3192199.80	0.1829	0.1525	

Venus	4035-07-31 20:52 G	3195025.20	3195025.37	3195025.54	0.1711	0.0218
Mercury	4036-05-16 04:48 G	3195314.54	3195314.70	3195314.86	0.1682	0.0406
Mercury	4037-03-27 14:38 G	3195630.01	3195630.11	3195630.21	0.1836	0.0893
Mercury	4045-10-06 05:31 G	3198744.62	3198744.73	3198744.84	0.1676	0.1221
Mercury	4046-08-17 23:31 G	3199060.37	3199060.48	3199060.60	0.1844	0.0239
Mercury	4056-01-08 08:24 G	3202490.74	3202490.85	3202490.96	0.1850	0.0433
Mercury	4057-02-02 04:48 G	3202881.61	3202881.70	3202881.80	0.1695	0.1397
Venus	4062-12-14 12:57 G	3205022.87	3205023.04	3205023.21	0.1816	0.0276
Mercury	4065-05-30 16:48 G	3205921.11	3205921.20	3205921.29	0.1857	0.1133
Mercury	4066-06-25 04:48 G	3206311.55	3206311.70	3206311.86	0.1689	0.0525
Mercury	4067-05-06 05:45 G	3206626.69	3206626.74	3206626.80	0.1829	0.1592
Venus	4067-07-30 21:07 G	3206712.30	3206712.38	3206712.45	0.1699	0.1507
Venus	4069-05-29 05:45 G	3207380.63	3207380.74	3207380.85	0.1725	0.1329
Earth	4072-11-24 20:09 G	3208656.22	3208656.34	3208656.47	0.1875	0.1467
Moon	4072-11-24 23:16 G	3208656.30	3208656.47	3208656.65	0.1875	0.1103 *
Mercury	4074-10-21 00:57 G	3209351.53	3209351.54	3209351.56	0.1864	0.1851
Mercury	4075-11-15 05:31 G	3209741.57	3209741.73	3209741.89	0.1683	0.0318
Mercury	4076-09-25 14:38 G	3210057.01	3210057.11	3210057.21	0.1836	0.0953
Mercury	4085-04-06 06:14 G	3213171.64	3213171.76	3213171.88	0.1676	0.1131
Mercury	4086-02-15 23:45 G	3213487.37	3213487.49	3213487.60	0.1843	0.0307
Venus	4094-12-14 04:04 G	3216710.58	3216710.67	3216710.76	0.1829	0.1565
Mercury	4095-07-09 08:24 G	3216917.73	3216917.85	3216917.96	0.1850	0.0377
Mercury	4096-08-03 05:45 G	3217308.66	3217308.74	3217308.81	0.1695	0.1498
Earth	4098-05-27 15:21 G	3217971.03	3217971.14	3217971.26	0.1665	0.1324
Moon	4098-05-27 16:48 G	3217971.10	3217971.20	3217971.29	0.1665	0.1409 *
Venus	4101-05-29 06:57 G	3219067.61	3219067.79	3219067.96	0.1714	0.0032
Mercury	4104-11-29 16:48 G	3220348.11	3220348.20	3220348.30	0.1857	0.1067
Mercury	4105-12-25 05:31 G	3220738.58	3220738.73	3220738.89	0.1689	0.0621
Mercury	4106-11-05 05:31 G	3221053.69	3221053.73	3221053.78	0.1829	0.1647
Mercury	4114-04-22 01:11 G	3223778.52	3223778.55	3223778.58	0.1863	0.1775

Mercury	4115-05-17 06:00 G	3224168.59	3224168.75	3224168.91	0.1682	0.0232
Mercury	4116-03-27 14:52 G	3224484.02	3224484.12	3224484.21	0.1836	0.1025
Mercury	4124-10-06 06:57 G	3227598.66	3227598.79	3227598.91	0.1677	0.1045
Mercury	4125-08-17 23:45 G	3227914.37	3227914.49	3227914.60	0.1843	0.0371
Venus	4128-10-11 18:28 G	3229065.10	3229065.27	3229065.43	0.1811	0.0591
Venus	4133-05-28 07:11 G	3230754.70	3230754.80	3230754.91	0.1703	0.1327
Mercury	4135-01-08 08:24 G	3231344.73	3231344.85	3231344.96	0.1850	0.0306
Venus	4135-03-27 14:38 G	3231423.04	3231423.11	3231423.19	0.1729	0.1552
Mercury	4136-02-03 06:14 G	3231735.71	3231735.76	3231735.82	0.1695	0.1593
Mercury	4144-05-30 16:48 G	3234775.11	3234775.20	3234775.30	0.1857	0.1000
Mercury	4145-06-25 06:28 G	3235165.62	3235165.77	3235165.91	0.1689	0.0715
Mercury	4146-05-06 05:45 G	3235480.70	3235480.74	3235480.78	0.1829	0.1716
Earth	4151-11-30 02:52 G	3237514.47	3237514.62	3237514.77	0.1869	0.1183
Moon	4151-11-30 12:00 G	3237514.84	3237515.00	3237515.16	0.1869	0.1025
Mercury	4153-10-21 01:11 G	3238205.50	3238205.55	3238205.59	0.1864	0.1717
Mercury	4154-11-15 06:43 G	3238595.62	3238595.78	3238595.94	0.1683	0.0136
Mercury	4155-09-26 14:38 G	3238911.02	3238911.11	3238911.21	0.1836	0.1084
Venus	4160-10-11 09:21 G	3240752.77	3240752.89	3240753.02	0.1825	0.1236
Mercury	4164-04-06 07:26 G	3242025.68	3242025.81	3242025.95	0.1677	0.0955
Mercury	4165-02-15 23:45 G	3242341.38	3242341.49	3242341.60	0.1843	0.0435
Venus	4167-03-26 16:19 G	3243110.01	3243110.18	3243110.36	0.1717	0.0183
Mercury	4174-07-09 08:24 G	3245771.74	3245771.85	3245771.97	0.1850	0.0240
Mercury	4175-08-04 06:57 G	3246162.78	3246162.79	3246162.81	0.1695	0.1683
Mercury	4183-11-29 16:48 G	3249202.10	3249202.20	3249202.30	0.1857	0.0935
Mercury	4184-12-24 06:57 G	3249592.64	3249592.79	3249592.93	0.1689	0.0800
Mercury	4185-11-04 05:45 G	3249907.72	3249907.74	3249907.76	0.1829	0.1780
Mercury	4193-04-21 01:11 G	3252632.50	3252632.55	3252632.61	0.1863	0.1642
Mercury	4194-05-16 07:26 G	3253022.65	3253022.81	3253022.98	0.1683	0.0043
Venus	4194-08-09 01:11 G	3253107.40	3253107.55	3253107.70	0.1807	0.0879
Mercury	4195-03-27 14:52 G	3253338.03	3253338.12	3253338.21	0.1836	0.1150

Venus	4199-03-25 17:31 G	3254797.10	3254797.23	3254797.35	0.1706	0.1148
Mercury	4203-10-07 08:09 G	3256452.70	3256452.84	3256452.98	0.1677	0.0867
Mercury	4204-08-17 23:45 G	3256768.38	3256768.49	3256768.60	0.1843	0.0500
Mercury	4213-02-26 09:21 G	3259882.87	3259882.89	3259882.90	0.1671	0.1657
Mercury	4214-01-08 08:24 G	3260198.73	3260198.85	3260198.97	0.1850	0.0176
Mercury	4223-05-31 17:02 G	3263629.10	3263629.21	3263629.31	0.1857	0.0862
Moon	4224-05-24 20:09 G	3263988.17	3263988.34	3263988.51	0.1653	0.0730
Earth	4224-05-25 03:07 G	3263988.46	3263988.63	3263988.79	0.1653	0.0793 *
Mercury	4224-06-25 07:40 G	3264019.68	3264019.82	3264019.96	0.1689	0.0902
Venus	4226-08-09 15:07 G	3264794.98	3264795.13	3264795.28	0.1821	0.0911
Mercury	4232-10-21 01:26 G	3267059.50	3267059.56	3267059.62	0.1863	0.1573
Venus	4233-01-22 02:24 G	3267152.43	3267152.60	3267152.77	0.1721	0.0379
Mercury	4233-11-15 07:55 G	3267449.66	3267449.83	3267449.99	0.1683	0.0040
Mercury	4234-09-26 14:52 G	3267765.03	3267765.12	3267765.20	0.1836	0.1216
Mercury	4243-04-07 08:38 G	3270879.72	3270879.86	3270880.01	0.1677	0.0780
Mercury	4244-02-16 23:45 G	3271195.38	3271195.49	3271195.60	0.1843	0.0568
Mercury	4252-08-27 09:50 G	3274309.86	3274309.91	3274309.97	0.1671	0.1568
Mercury	4253-07-09 08:24 G	3274625.74	3274625.85	3274625.97	0.1850	0.0111
Venus	4260-06-06 06:57 G	3277149.66	3277149.79	3277149.92	0.1803	0.1184
Mercury	4262-11-29 17:02 G	3278056.10	3278056.21	3278056.31	0.1857	0.0799
Mercury	4263-12-25 08:24 G	3278446.71	3278446.85	3278446.98	0.1689	0.0991
Venus	4265-01-21 03:21 G	3278839.50	3278839.64	3278839.78	0.1709	0.0958
Mercury	4272-04-21 01:11 G	3281486.49	3281486.55	3281486.62	0.1863	0.1511
Mercury	4273-05-16 08:38 G	3281876.70	3281876.86	3281877.03	0.1683	0.0140
Mercury	4274-03-27 14:52 G	3282192.04	3282192.12	3282192.20	0.1836	0.1277
Mercury	4282-10-06 09:21 G	3285306.74	3285306.89	3285307.04	0.1677	0.0690
Mercury	4283-08-17 23:45 G	3285622.38	3285622.49	3285622.60	0.1843	0.0629
Mercury	4292-02-26 10:19 G	3288736.86	3288736.93	3288737.00	0.1671	0.1491
Venus	4292-06-05 20:09 G	3288837.18	3288837.34	3288837.51	0.1817	0.0578
Mercury	4293-01-07 08:38 G	3289052.74	3289052.86	3289052.97	0.1850	0.0056

Venus	4298-11-19 12:00 G	3291194.84	3291195.00	3291195.16	0.1724	0.0588
Mercury	4302-05-31 17:02 G	3292483.10	3292483.21	3292483.32	0.1856	0.0730
Moon	4303-05-29 05:02 G	3292845.51	3292845.71	3292845.90	0.1657	0.0419
Earth	4303-05-29 07:26 G	3292845.63	3292845.81	3292846.00	0.1657	0.0488 *
Mercury	4303-06-26 08:52 G	3292873.74	3292873.87	3292874.00	0.1690	0.1081
Mercury	4311-10-22 01:26 G	3295913.49	3295913.56	3295913.63	0.1863	0.1440
Mercury	4312-11-15 09:21 G	3296303.73	3296303.89	3296304.05	0.1683	0.0230
Mercury	4313-09-26 14:52 G	3296619.04	3296619.12	3296619.19	0.1836	0.1340
Mercury	4322-04-07 10:04 G	3299733.77	3299733.92	3299734.07	0.1677	0.0599
Mercury	4323-02-16 23:45 G	3300049.39	3300049.49	3300049.60	0.1843	0.0701
Venus	4326-04-04 13:26 G	3301191.97	3301192.06	3301192.16	0.1799	0.1473
Venus	4330-11-19 13:40 G	3302881.91	3302882.07	3302882.22	0.1713	0.0772
Mercury	4331-08-28 11:02 G	3303163.88	3303163.96	3303164.05	0.1671	0.1395
Mercury	4332-07-09 08:24 G	3303479.74	3303479.85	3303479.97	0.1850	0.0056
Mercury	4341-11-29 17:02 G	3306910.10	3306910.21	3306910.32	0.1857	0.0663
Mercury	4342-12-25 09:35 G	3307300.78	3307300.90	3307301.02	0.1689	0.1177
Mercury	4351-04-22 01:26 G	3310340.48	3310340.56	3310340.64	0.1863	0.1367
Mercury	4352-05-16 09:50 G	3310730.75	3310730.91	3310731.07	0.1683	0.0315
Mercury	4353-03-27 14:52 G	3311046.05	3311046.12	3311046.19	0.1836	0.1412
Moon	4356-11-27 01:55 G	3312386.52	3312386.58	3312386.65	0.1883	0.1759
Earth	4356-11-27 09:35 G	3312386.85	3312386.90	3312386.95	0.1883	0.1814
Venus	4358-04-04 02:09 G	3312879.42	3312879.59	3312879.76	0.1813	0.0265
Mercury	4361-10-06 10:33 G	3314160.79	3314160.94	3314161.10	0.1677	0.0512
Mercury	4362-08-17 23:45 G	3314476.39	3314476.49	3314476.60	0.1842	0.0763
Venus	4364-09-16 21:35 G	3315237.25	3315237.40	3315237.56	0.1728	0.0794
Mercury	4371-02-26 11:45 G	3317590.89	3317590.99	3317591.09	0.1671	0.1312
Mercury	4372-01-08 08:24 G	3317906.74	3317906.85	3317906.97	0.1850	0.0116
Mercury	4381-05-30 17:02 G	3321337.10	3321337.21	3321337.32	0.1856	0.0597
Mercury	4382-06-25 10:19 G	3321727.83	3321727.93	3321728.04	0.1690	0.1274
Mercury	4390-10-21 01:26 G	3324767.48	3324767.56	3324767.64	0.1863	0.1307

Mercury	4391-11-15 10:33 G	3325157.78	3325157.94	3325158.10	0.1683	0.0412
Venus	4392-01-30 19:55 G	3325234.30	3325234.33	3325234.36	0.1795	0.1760
Mercury	4392-09-25 14:52 G	3325473.05	3325473.12	3325473.19	0.1835	0.1468
Venus	4396-09-15 23:02 G	3326924.30	3326924.46	3326924.63	0.1716	0.0574
Mercury	4401-04-06 11:16 G	3328587.81	3328587.97	3328588.13	0.1677	0.0425
Mercury	4402-02-15 23:45 G	3328903.39	3328903.49	3328903.60	0.1843	0.0827
Mercury	4410-08-27 12:14 G	3332017.90	3332018.01	3332018.12	0.1672	0.1229
Mercury	4411-07-09 08:38 G	3332333.74	3332333.86	3332333.98	0.1849	0.0164
Mercury	4420-11-28 17:02 G	3335764.10	3335764.21	3335764.32	0.1856	0.0532
Mercury	4421-12-24 10:48 G	3336154.86	3336154.95	3336155.05	0.1690	0.1361
Venus	4424-01-30 07:55 G	3336921.65	3336921.83	3336922.00	0.1809	0.0055
Earth	4429-05-24 21:35 G	3338863.33	3338863.40	3338863.48	0.1645	0.1514
Moon	4429-05-25 04:48 G	3338863.65	3338863.70	3338863.75	0.1646	0.1577
Mercury	4430-04-21 01:40 G	3339194.48	3339194.57	3339194.65	0.1863	0.1234
Venus	4430-07-15 06:57 G	3339279.65	3339279.79	3339279.93	0.1731	0.1014
Mercury	4431-05-16 11:16 G	3339584.82	3339584.97	3339585.13	0.1684	0.0508
Mercury	4432-03-26 14:52 G	3339900.06	3339900.12	3339900.18	0.1835	0.1534
Moon	4435-12-01 14:24 G	3341244.90	3341245.10	3341245.30	0.1877	0.0659
Earth	4435-12-01 18:43 G	3341245.11	3341245.28	3341245.45	0.1877	0.0950 *
Mercury	4440-10-05 11:45 G	3343014.83	3343014.99	3343015.16	0.1677	0.0336
Mercury	4441-08-16 23:45 G	3343330.39	3343330.49	3343330.60	0.1842	0.0893
Mercury	4450-02-25 12:57 G	3346444.92	3346445.04	3346445.16	0.1672	0.1136
Mercury	4451-01-07 08:38 G	3346760.74	3346760.86	3346760.97	0.1849	0.0233
Venus	4456-01-29 22:33 G	3348609.41	3348609.44	3348609.48	0.1823	0.1786
Mercury	4460-05-29 17:16 G	3350191.10	3350191.22	3350191.33	0.1856	0.0458
Mercury	4461-06-24 11:45 G	3350581.91	3350581.99	3350582.07	0.1690	0.1462
Venus	4462-07-14 08:52 G	3350966.70	3350966.87	3350967.04	0.1720	0.0376
Mercury	4469-10-20 01:40 G	3353621.48	3353621.57	3353621.66	0.1863	0.1168
Mercury	4470-11-14 11:45 G	3354011.84	3354011.99	3354012.14	0.1684	0.0586
Mercury	4471-09-25 14:52 G	3354327.07	3354327.12	3354327.18	0.1835	0.1601

Mercury	4480-04-05 12:28 G	3357441.86	3357442.02	3357442.18	0.1678	0.0242
Mercury	4481-02-15 00:00 G	3357757.40	3357757.50	3357757.59	0.1842	0.0960
Mercury	4489-08-26 13:40 G	3360871.94	3360872.07	3360872.19	0.1672	0.1047
Venus	4489-11-26 14:24 G	3360963.93	3360964.10	3360964.27	0.1805	0.0347
Mercury	4490-07-08 08:38 G	3361187.74	3361187.86	3361187.97	0.1849	0.0293
Venus	4494-07-13 09:50 G	3362653.91	3362653.91	3362653.92	0.1708	0.1705
Venus	4496-05-11 16:19 G	3363322.06	3363322.18	3363322.31	0.1735	0.1229
Mercury	4499-11-28 17:16 G	3364618.10	3364618.22	3364618.33	0.1856	0.0402
Mercury	4500-12-24 12:14 G	3365008.95	3365009.01	3365009.08	0.1690	0.1552
Earth	4508-05-28 02:09 G	3367720.40	3367720.59	3367720.78	0.1649	0.0267
Moon	4508-05-28 04:33 G	3367720.51	3367720.69	3367720.86	0.1649	0.0195 *
Mercury	4509-04-21 01:40 G	3368048.47	3368048.57	3368048.66	0.1863	0.1102
Mercury	4510-05-16 12:43 G	3368438.88	3368439.03	3368439.18	0.1684	0.0690
Mercury	4511-03-27 14:52 G	3368754.07	3368754.12	3368754.17	0.1835	0.1662
Mercury	4518-09-11 09:50 G	3371478.89	3371478.91	3371478.93	0.1869	0.1823
Mercury	4519-10-06 13:11 G	3371868.88	3371869.05	3371869.21	0.1678	0.0157
Mercury	4520-08-16 23:45 G	3372184.40	3372184.49	3372184.59	0.1842	0.1023
Venus	4521-11-27 04:19 G	3372651.57	3372651.68	3372651.78	0.1818	0.1457
Venus	4528-05-11 18:28 G	3375009.10	3375009.27	3375009.45	0.1723	0.0174
Mercury	4529-02-25 13:55 G	3375298.95	3375299.08	3375299.22	0.1672	0.0969
Mercury	4530-01-07 08:38 G	3375614.75	3375614.86	3375614.98	0.1849	0.0363
Mercury	4539-05-30 17:16 G	3379045.10	3379045.22	3379045.33	0.1856	0.0329
Mercury	4540-06-24 12:57 G	3379436.01	3379436.04	3379436.07	0.1690	0.1646
Mercury	4548-10-20 01:40 G	3382475.47	3382475.57	3382475.67	0.1863	0.1031
Mercury	4549-11-14 13:11 G	3382865.91	3382866.05	3382866.20	0.1684	0.0783
Mercury	4550-09-25 14:52 G	3383181.08	3383181.12	3383181.16	0.1835	0.1725
Venus	4555-09-24 20:24 G	3385006.19	3385006.35	3385006.52	0.1801	0.0651
Mercury	4558-03-12 09:50 G	3385905.87	3385905.91	3385905.95	0.1869	0.1758
Mercury	4559-04-06 13:40 G	3386295.91	3386296.07	3386296.24	0.1678	0.0077
Mercury	4560-02-16 00:00 G	3386611.41	3386611.50	3386611.59	0.1842	0.1089

Venus	4560-05-10 19:55 G	3386696.25	3386696.33	3386696.41	0.1711	0.1516
Venus	4562-03-10 01:11 G	3387364.46	3387364.55	3387364.64	0.1739	0.1463
Mercury	4568-08-26 14:52 G	3389725.98	3389726.12	3389726.25	0.1672	0.0873
Mercury	4569-07-08 08:38 G	3390041.75	3390041.86	3390041.97	0.1849	0.0421
Mercury	4578-01-16 16:04 G	3393156.16	3393156.17	3393156.18	0.1666	0.1657
Mercury	4578-11-28 17:16 G	3393472.10	3393472.22	3393472.34	0.1856	0.0259
Moon	4587-05-31 01:40 G	3396577.42	3396577.57	3396577.72	0.1652	0.0930
Earth	4587-05-31 07:26 G	3396577.66	3396577.81	3396577.96	0.1652	0.1009 *
Venus	4587-09-24 10:04 G	3396693.79	3396693.92	3396694.06	0.1815	0.1140
Mercury	4588-04-20 01:40 G	3396902.47	3396902.57	3396902.67	0.1862	0.0959
Mercury	4589-05-15 13:40 G	3397292.93	3397293.07	3397293.21	0.1684	0.0868
Mercury	4590-03-26 15:07 G	3397608.11	3397608.13	3397608.15	0.1835	0.1797
Venus	4594-03-09 03:50 G	3399051.49	3399051.66	3399051.83	0.1727	0.0044
Mercury	4597-09-10 09:50 G	3400332.86	3400332.91	3400332.96	0.1869	0.1690
Mercury	4598-10-05 14:24 G	3400722.94	3400723.10	3400723.26	0.1678	0.0029
Mercury	4599-08-17 00:00 G	3401038.41	3401038.50	3401038.59	0.1842	0.1153
Mercury	4608-02-26 15:21 G	3404153.00	3404153.14	3404153.28	0.1672	0.0786
Mercury	4609-01-07 08:38 G	3404468.75	3404468.86	3404468.97	0.1849	0.0490
Mercury	4617-07-18 16:48 G	3407583.15	3407583.20	3407583.26	0.1666	0.1562
Mercury	4618-05-30 17:16 G	3407899.11	3407899.22	3407899.34	0.1856	0.0194
Venus	4621-07-23 03:35 G	3409048.50	3409048.65	3409048.79	0.1797	0.0932
Venus	4626-03-09 05:45 G	3410738.63	3410738.74	3410738.85	0.1715	0.1328
Mercury	4627-10-21 01:40 G	3411329.47	3411329.57	3411329.67	0.1863	0.0898
Venus	4628-01-06 10:04 G	3411406.89	3411406.92	3411406.96	0.1743	0.1694
Mercury	4628-11-14 14:38 G	3411719.97	3411720.11	3411720.24	0.1684	0.0965
Mercury	4637-03-12 10:04 G	3414759.86	3414759.92	3414759.97	0.1869	0.1614
Mercury	4638-04-06 14:52 G	3415149.96	3415150.12	3415150.29	0.1678	0.0124
Mercury	4639-02-16 00:00 G	3415465.41	3415465.50	3415465.58	0.1842	0.1219
Mercury	4647-08-27 15:50 G	3418580.02	3418580.16	3418580.31	0.1672	0.0701
Mercury	4648-07-08 08:52 G	3418895.76	3418895.87	3418895.98	0.1849	0.0564

Venus	4653-07-22 16:04 G	3420736.01	3420736.17	3420736.32	0.1810	0.0823
Mercury	4657-01-16 17:16 G	3422010.15	3422010.22	3422010.30	0.1666	0.1479
Mercury	4657-11-28 17:16 G	3422326.10	3422326.22	3422326.34	0.1856	0.0129
Venus	4660-01-05 13:26 G	3423093.89	3423094.06	3423094.23	0.1730	0.0251
Mercury	4667-04-21 01:40 G	3425756.47	3425756.57	3425756.68	0.1862	0.0827
Mercury	4668-05-15 15:21 G	3426147.01	3426147.14	3426147.26	0.1684	0.1062
Mercury	4676-09-10 09:50 G	3429186.85	3429186.91	3429186.98	0.1869	0.1555
Mercury	4677-10-05 15:35 G	3429576.99	3429577.15	3429577.32	0.1678	0.0217
Mercury	4678-08-17 00:00 G	3429892.42	3429892.50	3429892.58	0.1842	0.1283
Mercury	4687-02-25 16:33 G	3433007.04	3433007.19	3433007.34	0.1672	0.0608
Venus	4687-05-20 09:50 G	3433090.78	3433090.91	3433091.03	0.1792	0.1229
Mercury	4688-01-07 08:38 G	3433322.75	3433322.86	3433322.97	0.1849	0.0621
Venus	4692-01-04 15:35 G	3434781.02	3434781.15	3434781.28	0.1718	0.1133
Mercury	4696-07-17 18:00 G	3436437.16	3436437.25	3436437.33	0.1666	0.1397
Mercury	4697-05-29 17:31 G	3436753.11	3436753.23	3436753.34	0.1856	0.0078
Mercury	4706-10-21 01:55 G	3440183.47	3440183.58	3440183.68	0.1862	0.0760
Mercury	4707-11-15 15:35 G	3440574.03	3440574.15	3440574.27	0.1684	0.1145
Moon	4713-05-28 21:07 G	3442595.23	3442595.38	3442595.54	0.1641	0.1065
Earth	4713-05-28 22:48 G	3442595.30	3442595.45	3442595.60	0.1641	0.0959 *
Mercury	4716-03-12 10:04 G	3443613.85	3443613.92	3443613.99	0.1869	0.1478
Mercury	4717-04-06 16:19 G	3444004.02	3444004.18	3444004.34	0.1678	0.0304
Mercury	4718-02-16 00:00 G	3444319.42	3444319.50	3444319.58	0.1841	0.1349
Venus	4719-05-20 21:35 G	3444778.23	3444778.40	3444778.57	0.1806	0.0498
Moon	4719-12-04 05:02 G	3444975.54	3444975.71	3444975.89	0.1885	0.0533
Earth	4719-12-04 08:09 G	3444975.66	3444975.84	3444976.03	0.1885	0.0648 *
Venus	4725-11-02 22:48 G	3447136.28	3447136.45	3447136.62	0.1734	0.0468
Mercury	4726-08-27 17:16 G	3447434.07	3447434.22	3447434.38	0.1672	0.0516
Mercury	4727-07-09 08:52 G	3447749.76	3447749.87	3447749.97	0.1849	0.0694
Mercury	4736-01-17 18:28 G	3450864.18	3450864.27	3450864.37	0.1667	0.1307
Mercury	4736-11-28 17:16 G	3451180.11	3451180.22	3451180.34	0.1855	0.0062

Mercury	4746-04-21 01:55 G	3454610.47	3454610.58	3454610.69	0.1862	0.0691
Mercury	4747-05-16 16:33 G	3455001.08	3455001.19	3455001.30	0.1685	0.1249
Venus	4753-03-17 16:48 G	3457133.11	3457133.20	3457133.29	0.1789	0.1504
Mercury	4755-09-11 10:04 G	3458040.85	3458040.92	3458041.00	0.1869	0.1408
Mercury	4756-10-05 17:02 G	3458431.05	3458431.21	3458431.37	0.1678	0.0393
Mercury	4757-08-17 00:00 G	3458746.43	3458746.50	3458746.57	0.1842	0.1414
Venus	4757-11-02 01:26 G	3458823.42	3458823.56	3458823.71	0.1722	0.0939
Mercury	4766-02-25 17:45 G	3461861.08	3461861.24	3461861.40	0.1672	0.0436
Mercury	4767-01-07 08:52 G	3462176.76	3462176.87	3462176.97	0.1848	0.0759
Mercury	4775-07-18 19:11 G	3465291.19	3465291.30	3465291.41	0.1667	0.1215
Mercury	4776-05-29 17:31 G	3465607.11	3465607.23	3465607.34	0.1855	0.0091
Venus	4785-03-17 04:04 G	3468820.49	3468820.67	3468820.84	0.1802	0.0198
Mercury	4785-10-20 01:55 G	3469037.47	3469037.58	3469037.69	0.1862	0.0621
Mercury	4786-11-14 17:16 G	3469428.12	3469428.22	3469428.32	0.1685	0.1342
Venus	4791-08-31 08:09 G	3471178.69	3471178.84	3471179.00	0.1737	0.0685
Earth	4792-05-31 02:38 G	3471452.42	3471452.61	3471452.80	0.1644	0.0272
Moon	4792-05-31 08:24 G	3471452.66	3471452.85	3471453.04	0.1644	0.0362 *
Mercury	4795-03-12 10:04 G	3472467.84	3472467.92	3472468.00	0.1869	0.1343
Mercury	4796-04-05 17:31 G	3472858.08	3472858.23	3472858.39	0.1678	0.0487
Mercury	4797-02-15 00:00 G	3473173.43	3473173.50	3473173.57	0.1841	0.1479
Mercury	4805-08-26 18:28 G	3476288.11	3476288.27	3476288.43	0.1673	0.0339
Mercury	4806-07-08 08:52 G	3476603.76	3476603.87	3476603.97	0.1848	0.0823
Mercury	4815-01-16 19:40 G	3479718.20	3479718.32	3479718.44	0.1667	0.1137
Mercury	4815-11-28 17:31 G	3480034.11	3480034.23	3480034.35	0.1855	0.0148
Venus	4819-01-12 23:45 G	3481175.49	3481175.49	3481175.50	0.1784	0.1780
Venus	4823-08-30 10:48 G	3482865.79	3482865.95	3482866.11	0.1725	0.0732
Mercury	4825-04-20 01:55 G	3483464.47	3483464.58	3483464.69	0.1862	0.0551
Mercury	4826-05-15 17:45 G	3483855.15	3483855.24	3483855.33	0.1685	0.1428
Mercury	4834-09-10 10:04 G	3486894.84	3486894.92	3486895.01	0.1869	0.1274
Mercury	4835-10-05 18:14 G	3487285.11	3487285.26	3487285.42	0.1679	0.0581

Mercury	4836-08-16 00:00 G	3487600.44	3487600.50	3487600.56	0.1841	0.1543
Mercury	4845-02-24 19:11 G	3490715.14	3490715.30	3490715.46	0.1673	0.0249
Mercury	4846-01-06 08:52 G	3491030.77	3491030.87	3491030.97	0.1848	0.0890
Venus	4851-01-12 10:19 G	3492862.76	3492862.93	3492863.11	0.1798	0.0115
Mercury	4854-07-17 20:24 G	3494145.23	3494145.35	3494145.48	0.1667	0.1040
Mercury	4855-05-29 17:31 G	3494461.11	3494461.23	3494461.35	0.1855	0.0213
Venus	4857-06-27 17:16 G	3495221.08	3495221.22	3495221.37	0.1741	0.0913
Mercury	4864-10-19 01:55 G	3497891.47	3497891.58	3497891.69	0.1862	0.0486
Mercury	4865-11-13 18:28 G	3498282.21	3498282.27	3498282.34	0.1685	0.1529
Earth	4871-06-03 07:26 G	3500309.75	3500309.81	3500309.88	0.1648	0.1535
Mercury	4874-03-11 10:19 G	3501321.84	3501321.93	3501322.02	0.1868	0.1195
Mercury	4875-04-05 18:57 G	3501712.14	3501712.29	3501712.44	0.1679	0.0668
Mercury	4876-02-15 00:00 G	3502027.45	3502027.50	3502027.56	0.1841	0.1613
Venus	4883-01-11 23:45 G	3504550.44	3504550.49	3504550.55	0.1812	0.1695
Mercury	4884-08-25 19:40 G	3505142.16	3505142.32	3505142.49	0.1673	0.0163
Mercury	4885-07-07 08:52 G	3505457.78	3505457.87	3505457.97	0.1848	0.0963
Venus	4889-06-26 20:24 G	3506908.19	3506908.35	3506908.52	0.1729	0.0526
Mercury	4894-01-15 21:07 G	3508572.25	3508572.38	3508572.51	0.1667	0.0954
Mercury	4894-11-27 17:31 G	3508888.11	3508888.23	3508888.34	0.1855	0.0278
Mercury	4904-04-20 02:09 G	3512318.47	3512318.59	3512318.70	0.1862	0.0416
Mercury	4905-05-15 19:11 G	3512709.27	3512709.30	3512709.34	0.1685	0.1628
Mercury	4913-09-10 10:19 G	3515748.83	3515748.93	3515749.02	0.1868	0.1137
Mercury	4914-10-05 19:40 G	3516139.17	3516139.32	3516139.47	0.1679	0.0766
Mercury	4915-08-17 00:00 G	3516454.46	3516454.50	3516454.55	0.1841	0.1676
Venus	4916-11-09 17:16 G	3516905.05	3516905.22	3516905.39	0.1794	0.0390
Earth	4918-05-28 21:35 G	3517470.37	3517470.40	3517470.44	0.1634	0.1598
Moon	4918-05-28 23:45 G	3517470.42	3517470.49	3517470.56	0.1634	0.1485 *
Mercury	4923-01-31 18:28 G	3519179.26	3519179.27	3519179.27	0.1875	0.1868
Venus	4923-04-26 02:24 G	3519263.47	3519263.60	3519263.73	0.1745	0.1140
Mercury	4924-02-25 20:24 G	3519569.19	3519569.35	3519569.51	0.1673	0.0069

Mercury	4925-01-06 08:52 G	3519884.77	3519884.87	3519884.97	0.1848	0.1020
Mercury	4933-07-17 21:35 G	3522999.26	3522999.40	3522999.54	0.1667	0.0871
Mercury	4934-05-29 17:45 G	3523315.12	3523315.24	3523315.35	0.1855	0.0357
Mercury	4942-12-07 23:16 G	3526429.45	3526429.47	3526429.50	0.1662	0.1635
Mercury	4943-10-20 02:09 G	3526745.47	3526745.59	3526745.70	0.1861	0.0351
Venus	4948-11-09 05:45 G	3528592.63	3528592.74	3528592.85	0.1808	0.1376
Mercury	4953-03-11 10:19 G	3530175.84	3530175.93	3530176.03	0.1868	0.1061
Mercury	4954-04-05 20:24 G	3530566.21	3530566.35	3530566.49	0.1679	0.0860
Mercury	4955-02-15 00:00 G	3530881.47	3530881.50	3530881.54	0.1841	0.1742
Venus	4955-04-25 05:45 G	3530950.57	3530950.74	3530950.91	0.1732	0.0313
Mercury	4962-08-01 18:28 G	3533606.24	3533606.27	3533606.30	0.1875	0.1803
Mercury	4963-08-26 21:07 G	3533996.22	3533996.38	3533996.54	0.1673	0.0026
Mercury	4964-07-07 08:52 G	3534311.78	3534311.87	3534311.97	0.1848	0.1094
Mercury	4973-01-15 22:19 G	3537426.29	3537426.43	3537426.57	0.1667	0.0776
Mercury	4973-11-27 17:31 G	3537742.12	3537742.23	3537742.35	0.1855	0.0416
Mercury	4982-06-08 00:00 G	3540856.44	3540856.50	3540856.55	0.1662	0.1549
Venus	4982-09-07 00:00 G	3540947.34	3540947.50	3540947.66	0.1790	0.0680
Mercury	4983-04-20 02:09 G	3541172.47	3541172.59	3541172.71	0.1862	0.0275
Venus	4987-04-24 07:55 G	3542637.81	3542637.83	3542637.85	0.1720	0.1701
Venus	4989-02-20 11:02 G	3543305.85	3543305.96	3543306.06	0.1749	0.1384
Mercury	4992-09-09 10:33 G	3544602.84	3544602.94	3544603.04	0.1868	0.0989
Mercury	4993-10-04 20:52 G	3544993.23	3544993.37	3544993.51	0.1679	0.0946
Mercury	4994-08-16 00:00 G	3545308.49	3545308.50	3545308.52	0.1841	0.1810
Moon	4997-05-30 20:09 G	3546327.17	3546327.34	3546327.51	0.1637	0.0464
Earth	4997-05-31 00:57 G	3546327.36	3546327.54	3546327.73	0.1637	0.0391 *

6TH MILLENNIUM CE

This is a list of transits visible from Mars in the 6th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	5002-01-31 18:28	G	3548033.23	3548033.27	3548033.31	0.1874	0.1730	
Mercury	5003-02-25 21:35	G	3548423.24	3548423.40	3548423.57	0.1673	0.0114	
Earth	5003-12-05 19:40	G	3548706.12	3548706.32	3548706.52	0.1892	0.0277	
Moon	5003-12-06 05:02	G	3548706.51	3548706.71	3548706.90	0.1892	0.0492	*
Mercury	5004-01-07 09:07	G	3548738.79	3548738.88	3548738.97	0.1848	0.1160	
Mercury	5012-07-17 23:02	G	3551853.31	3551853.46	3551853.61	0.1667	0.0683	
Mercury	5013-05-29 17:45	G	3552169.12	3552169.24	3552169.35	0.1855	0.0488	
Venus	5014-09-07 12:14	G	3552634.87	3552635.01	3552635.15	0.1804	0.1074	
Venus	5021-02-20 14:52	G	3554992.94	3554993.12	3554993.29	0.1736	0.0097	
Mercury	5021-12-08 00:28	G	3555283.45	3555283.52	3555283.60	0.1662	0.1462	
Mercury	5022-10-20 02:09	G	3555599.47	3555599.59	3555599.71	0.1861	0.0208	
Mercury	5032-03-11 10:33	G	3559029.84	3559029.94	3559030.04	0.1868	0.0925	
Mercury	5033-04-05 21:35	G	3559420.27	3559420.40	3559420.53	0.1679	0.1046	
Mercury	5041-08-01 18:43	G	3562460.22	3562460.28	3562460.33	0.1875	0.1657	
Mercury	5042-08-26 22:33	G	3562850.27	3562850.44	3562850.60	0.1673	0.0214	
Mercury	5043-07-08 09:07	G	3563165.79	3563165.88	3563165.96	0.1848	0.1226	
Venus	5048-07-05 07:26	G	3564989.66	3564989.81	3564989.96	0.1786	0.0950	
Mercury	5052-01-16 23:31	G	3566280.33	3566280.48	3566280.63	0.1667	0.0606	
Mercury	5052-11-27 17:45	G	3566596.13	3566596.24	3566596.35	0.1855	0.0557	
Venus	5053-02-19 17:45	G	3566680.16	3566680.24	3566680.33	0.1724	0.1508	
Venus	5054-12-19 19:55	G	3567348.27	3567348.33	3567348.39	0.1752	0.1621	
Mercury	5061-06-08 01:11	G	3569710.46	3569710.55	3569710.64	0.1662	0.1373	

Mercury	5062-04-20 02:09 G	3570026.48	3570026.59	3570026.71	0.1861	0.0149
Mercury	5071-09-10 10:33 G	3573456.84	3573456.94	3573457.04	0.1868	0.0851
Mercury	5072-10-04 22:19 G	3573847.31	3573847.43	3573847.55	0.1679	0.1145
Moon	5076-06-02 23:16 G	3575184.30	3575184.47	3575184.65	0.1640	0.0750
Earth	5076-06-03 04:48 G	3575184.54	3575184.70	3575184.86	0.1640	0.0833 *
Venus	5080-07-04 18:43 G	3576677.12	3576677.28	3576677.43	0.1800	0.0770
Mercury	5081-01-30 18:43 G	3576887.22	3576887.28	3576887.34	0.1874	0.1587
Mercury	5082-02-24 23:02 G	3577277.30	3577277.46	3577277.62	0.1673	0.0300
Mercury	5083-01-06 09:07 G	3577592.80	3577592.88	3577592.96	0.1848	0.1293
Venus	5086-12-19 00:14 G	3579035.34	3579035.51	3579035.69	0.1740	0.0132
Mercury	5091-07-18 00:14 G	3580707.36	3580707.51	3580707.67	0.1668	0.0505
Mercury	5092-05-28 17:45 G	3581023.13	3581023.24	3581023.35	0.1854	0.0621
Mercury	5100-12-08 01:40 G	3584137.47	3584137.57	3584137.67	0.1662	0.1290
Mercury	5101-10-20 02:09 G	3584453.48	3584453.59	3584453.71	0.1861	0.0098
Mercury	5111-03-12 10:48 G	3587883.84	3587883.95	3587884.05	0.1868	0.0774
Mercury	5112-04-05 22:48 G	3588274.34	3588274.45	3588274.57	0.1679	0.1231
Venus	5114-05-03 14:09 G	3589031.97	3589032.09	3589032.22	0.1782	0.1235
Venus	5118-12-19 03:21 G	3590722.53	3590722.64	3590722.76	0.1727	0.1307
Mercury	5120-08-01 18:43 G	3591314.21	3591314.28	3591314.35	0.1874	0.1518
Mercury	5121-08-26 23:45 G	3591704.33	3591704.49	3591704.65	0.1674	0.0393
Mercury	5122-07-08 09:07 G	3592019.80	3592019.88	3592019.96	0.1847	0.1362
Mercury	5131-01-17 00:57 G	3595134.38	3595134.54	3595134.69	0.1668	0.0418
Mercury	5131-11-28 17:45 G	3595450.13	3595450.24	3595450.35	0.1854	0.0688
Mercury	5140-06-08 02:24 G	3598564.49	3598564.60	3598564.71	0.1662	0.1196
Mercury	5141-04-20 02:24 G	3598880.48	3598880.60	3598880.72	0.1861	0.0011
Venus	5146-05-03 00:57 G	3600719.37	3600719.54	3600719.71	0.1796	0.0460
Mercury	5150-09-10 10:33 G	3602310.84	3602310.94	3602311.05	0.1868	0.0717
Mercury	5151-10-05 23:45 G	3602701.39	3602701.49	3602701.59	0.1680	0.1332
Venus	5152-10-16 09:21 G	3603077.72	3603077.89	3603078.06	0.1743	0.0352
Mercury	5160-01-31 18:57 G	3605741.21	3605741.29	3605741.36	0.1874	0.1442

Mercury	5161-02-25 00:14 G	3606131.36	3606131.51	3606131.67	0.1673	0.0486
Mercury	5162-01-06 09:07 G	3606446.81	3606446.88	3606446.95	0.1848	0.1423
Mercury	5170-07-18 01:26 G	3609561.40	3609561.56	3609561.72	0.1668	0.0331
Mercury	5171-05-29 18:00 G	3609877.14	3609877.25	3609877.35	0.1854	0.0766
Mercury	5179-12-08 03:07 G	3612991.51	3612991.63	3612991.75	0.1662	0.1110
Venus	5180-02-28 21:50 G	3613074.31	3613074.41	3613074.50	0.1778	0.1498
Mercury	5180-10-19 02:24 G	3613307.48	3613307.60	3613307.72	0.1861	0.0070
Venus	5184-10-15 12:57 G	3614764.91	3614765.04	3614765.18	0.1731	0.1105
Mercury	5190-03-11 10:48 G	3616737.84	3616737.95	3616738.06	0.1868	0.0637
Mercury	5191-04-06 00:28 G	3617128.43	3617128.52	3617128.60	0.1680	0.1427
Mercury	5199-08-01 18:43 G	3620168.21	3620168.28	3620168.36	0.1874	0.1377
Mercury	5200-08-26 01:11 G	3620558.39	3620558.55	3620558.70	0.1674	0.0582
Mercury	5201-07-07 09:07 G	3620873.82	3620873.88	3620873.95	0.1847	0.1497
Earth	5202-06-01 00:57 G	3621202.39	3621202.54	3621202.68	0.1631	0.1006
Moon	5202-06-01 06:57 G	3621202.62	3621202.79	3621202.95	0.1631	0.0839 *
Mercury	5210-01-16 02:09 G	3623988.43	3623988.59	3623988.75	0.1668	0.0234
Mercury	5210-11-27 17:45 G	3624304.14	3624304.24	3624304.35	0.1854	0.0826
Venus	5212-02-28 07:55 G	3624761.65	3624761.83	3624762.00	0.1791	0.0178
Venus	5218-08-13 18:43 G	3627120.11	3627120.28	3627120.44	0.1747	0.0576
Mercury	5219-06-08 03:35 G	3627418.52	3627418.65	3627418.78	0.1662	0.1023
Mercury	5220-04-19 02:24 G	3627734.49	3627734.60	3627734.72	0.1861	0.0150
Mercury	5229-09-09 10:48 G	3631164.84	3631164.95	3631165.07	0.1867	0.0569
Mercury	5230-10-05 00:57 G	3631555.47	3631555.54	3631555.61	0.1680	0.1515
Mercury	5239-01-30 18:57 G	3634595.20	3634595.29	3634595.37	0.1874	0.1302
Mercury	5240-02-25 01:40 G	3634985.42	3634985.57	3634985.72	0.1674	0.0671
Mercury	5241-01-05 09:21 G	3635300.83	3635300.89	3635300.94	0.1847	0.1564
Venus	5245-12-26 05:16 G	3637116.71	3637116.72	3637116.74	0.1774	0.1764
Mercury	5249-07-17 02:52 G	3638415.46	3638415.62	3638415.78	0.1668	0.0141
Mercury	5250-05-28 18:00 G	3638731.15	3638731.25	3638731.35	0.1854	0.0898
Venus	5250-08-12 22:19 G	3638807.28	3638807.43	3638807.58	0.1735	0.0891

Mercury	5258-12-07 04:19 G	3641845.54	3641845.68	3641845.81	0.1663	0.0934
Mercury	5259-10-19 02:24 G	3642161.49	3642161.60	3642161.72	0.1861	0.0217
Mercury	5269-03-10 10:48 G	3645591.84	3645591.95	3645592.07	0.1867	0.0502
Mercury	5270-04-05 01:40 G	3645982.53	3645982.57	3645982.62	0.1680	0.1618
Venus	5277-12-25 14:38 G	3648803.94	3648804.11	3648804.29	0.1787	0.0125
Mercury	5278-07-31 18:57 G	3649022.21	3649022.29	3649022.38	0.1874	0.1228
Mercury	5279-08-26 02:24 G	3649412.46	3649412.60	3649412.75	0.1674	0.0769
Mercury	5280-07-06 09:21 G	3649727.83	3649727.89	3649727.94	0.1847	0.1629
Earth	5281-06-03 04:19 G	3650059.49	3650059.68	3650059.87	0.1633	0.0192
Moon	5281-06-03 09:35 G	3650059.72	3650059.90	3650060.08	0.1633	0.0236 *
Venus	5284-06-10 03:35 G	3651162.49	3651162.65	3651162.80	0.1751	0.0814
Moon	5287-12-05 21:50 G	3652436.20	3652436.41	3652436.62	0.1900	0.0022
Earth	5287-12-06 06:14 G	3652436.56	3652436.76	3652436.96	0.1899	0.0150 *
Mercury	5289-01-15 03:21 G	3652842.47	3652842.64	3652842.80	0.1668	0.0067
Mercury	5289-11-26 18:00 G	3653158.15	3653158.25	3653158.35	0.1854	0.0967
Mercury	5298-06-07 05:02 G	3656272.57	3656272.71	3656272.85	0.1663	0.0840
Mercury	5299-04-19 02:38 G	3656588.49	3656588.61	3656588.72	0.1860	0.0283
Mercury	5307-10-29 06:43 G	3659702.75	3659702.78	3659702.82	0.1657	0.1604
Mercury	5308-09-09 11:02 G	3660018.84	3660018.96	3660019.07	0.1867	0.0429
Venus	5309-12-26 02:38 G	3660491.55	3660491.61	3660491.68	0.1801	0.1645
Venus	5316-06-10 07:40 G	3662849.66	3662849.82	3662849.98	0.1738	0.0678
Mercury	5318-01-30 18:57 G	3663449.20	3663449.29	3663449.39	0.1874	0.1162
Mercury	5319-02-25 03:07 G	3663839.49	3663839.63	3663839.77	0.1674	0.0859
Mercury	5320-01-06 09:21 G	3664154.84	3664154.89	3664154.93	0.1847	0.1696
Mercury	5328-07-17 04:04 G	3667269.51	3667269.67	3667269.84	0.1668	0.0059
Mercury	5329-05-28 18:00 G	3667585.15	3667585.25	3667585.35	0.1854	0.1031
Mercury	5337-12-07 05:31 G	3670699.59	3670699.73	3670699.87	0.1663	0.0757
Mercury	5338-10-19 02:38 G	3671015.49	3671015.61	3671015.72	0.1861	0.0350
Venus	5343-10-23 21:50 G	3672846.24	3672846.41	3672846.59	0.1783	0.0398
Mercury	5347-04-29 07:11 G	3674129.74	3674129.80	3674129.87	0.1657	0.1521

Mercury	5348-03-10 11:02 G	3674445.85	3674445.96	3674446.08	0.1867	0.0356
Venus	5350-04-08 12:14 G	3675204.88	3675205.01	3675205.15	0.1755	0.1053
Mercury	5357-07-31 19:11 G	3677876.20	3677876.30	3677876.39	0.1874	0.1091
Mercury	5358-08-26 03:50 G	3678266.52	3678266.66	3678266.79	0.1674	0.0955
Mercury	5359-07-07 09:21 G	3678581.86	3678581.89	3678581.92	0.1846	0.1765
Moon	5360-06-06 06:14 G	3678916.65	3678916.76	3678916.86	0.1636	0.1315
Earth	5360-06-06 07:26 G	3678916.71	3678916.81	3678916.90	0.1636	0.1402 *
Mercury	5366-12-22 03:07 G	3681306.61	3681306.63	3681306.65	0.1880	0.1837
Mercury	5368-01-16 04:48 G	3681696.54	3681696.70	3681696.86	0.1668	0.0132
Mercury	5368-11-26 18:00 G	3682012.16	3682012.25	3682012.34	0.1854	0.1101
Venus	5375-10-23 09:07 G	3684533.76	3684533.88	3684533.99	0.1797	0.1338
Mercury	5377-06-07 06:14 G	3685126.61	3685126.76	3685126.91	0.1663	0.0661
Mercury	5378-04-19 02:38 G	3685442.50	3685442.61	3685442.73	0.1860	0.0424
Venus	5382-04-07 16:33 G	3686892.02	3686892.19	3686892.36	0.1742	0.0450
Mercury	5386-10-28 07:55 G	3688556.75	3688556.83	3688556.91	0.1657	0.1430
Mercury	5387-09-09 11:02 G	3688872.84	3688872.96	3688873.07	0.1867	0.0292
Mercury	5397-01-29 19:11 G	3692303.21	3692303.30	3692303.40	0.1874	0.1012
Mercury	5398-02-24 04:19 G	3692693.56	3692693.68	3692693.81	0.1674	0.1048
Mercury	5399-01-05 09:21 G	3693008.88	3693008.89	3693008.90	0.1847	0.1828
Mercury	5406-06-23 03:07 G	3695733.60	3695733.63	3695733.67	0.1880	0.1763
Earth	5407-06-02 02:09 G	3696077.55	3696077.59	3696077.63	0.1624	0.1582
Mercury	5407-07-18 05:16 G	3696123.56	3696123.72	3696123.88	0.1669	0.0221
Mercury	5408-05-28 18:14 G	3696439.17	3696439.26	3696439.35	0.1853	0.1177
Venus	5409-08-21 05:16 G	3696888.56	3696888.72	3696888.88	0.1779	0.0674
Venus	5416-02-04 20:38 G	3699247.25	3699247.36	3699247.47	0.1759	0.1307
Mercury	5416-12-07 06:57 G	3699553.63	3699553.79	3699553.94	0.1663	0.0574
Mercury	5417-10-19 02:38 G	3699869.50	3699869.61	3699869.72	0.1860	0.0487
Mercury	5426-04-29 08:38 G	3702983.77	3702983.86	3702983.95	0.1658	0.1342
Mercury	5427-03-11 11:16 G	3703299.85	3703299.97	3703300.08	0.1867	0.0218
Mercury	5436-07-31 19:11 G	3706730.20	3706730.30	3706730.40	0.1873	0.0946

Mercury	5437-08-26 05:16 G	3707120.60	3707120.72	3707120.83	0.1674	0.1147
Venus	5441-08-20 16:04 G	3708576.03	3708576.17	3708576.32	0.1793	0.1048
Mercury	5445-12-22 03:07 G	3710160.59	3710160.63	3710160.68	0.1880	0.1697
Mercury	5447-01-16 06:00 G	3710550.59	3710550.75	3710550.92	0.1669	0.0321
Mercury	5447-11-27 18:00 G	3710866.17	3710866.25	3710866.34	0.1853	0.1236
Venus	5448-02-04 01:40 G	3710934.39	3710934.57	3710934.74	0.1746	0.0226
Mercury	5456-06-07 07:26 G	3713980.65	3713980.81	3713980.96	0.1663	0.0487
Mercury	5457-04-19 02:52 G	3714296.51	3714296.62	3714296.73	0.1860	0.0562
Mercury	5465-10-28 09:07 G	3717410.78	3717410.88	3717410.98	0.1658	0.1259
Mercury	5466-09-09 11:16 G	3717726.85	3717726.97	3717727.09	0.1867	0.0143
Venus	5475-06-18 12:57 G	3720930.89	3720931.04	3720931.19	0.1775	0.0936
Mercury	5476-01-30 19:26 G	3721157.20	3721157.31	3721157.41	0.1873	0.0874
Mercury	5477-02-24 05:45 G	3721547.63	3721547.74	3721547.85	0.1675	0.1238
Venus	5480-02-03 05:45 G	3722621.70	3722621.74	3722621.77	0.1733	0.1689
Venus	5481-12-02 05:16 G	3723289.64	3723289.72	3723289.80	0.1763	0.1556
Mercury	5485-06-22 03:21 G	3724587.58	3724587.64	3724587.70	0.1880	0.1618
Moon	5486-06-03 23:31 G	3724934.29	3724934.48	3724934.66	0.1627	0.0473
Earth	5486-06-04 05:02 G	3724934.53	3724934.71	3724934.90	0.1627	0.0407 *
Mercury	5486-07-17 06:43 G	3724977.62	3724977.78	3724977.94	0.1669	0.0412
Mercury	5487-05-28 18:14 G	3725293.18	3725293.26	3725293.34	0.1853	0.1308
Mercury	5495-12-07 08:09 G	3728407.68	3728407.84	3728408.00	0.1663	0.0394
Mercury	5496-10-18 02:52 G	3728723.51	3728723.62	3728723.73	0.1860	0.0627
Mercury	5505-04-29 09:50 G	3731837.80	3731837.91	3731838.02	0.1658	0.1165
Mercury	5506-03-11 11:16 G	3732153.85	3732153.97	3732154.09	0.1867	0.0079
Venus	5507-06-18 22:48 G	3732618.29	3732618.45	3732618.61	0.1789	0.0750
Venus	5513-12-02 10:48 G	3734976.78	3734976.95	3734977.12	0.1749	0.0015
Mercury	5515-08-01 19:26 G	3735584.21	3735584.31	3735584.42	0.1873	0.0797
Mercury	5516-08-26 06:28 G	3735974.67	3735974.77	3735974.87	0.1675	0.1333
Mercury	5524-12-22 03:21 G	3739014.58	3739014.64	3739014.71	0.1879	0.1549
Mercury	5526-01-16 07:11 G	3739404.65	3739404.80	3739404.96	0.1669	0.0494

Mercury	5526-11-27 18:14 G	3739720.19	3739720.26	3739720.34	0.1853	0.1379
Mercury	5535-06-08 08:52 G	3742834.71	3742834.87	3742835.03	0.1663	0.0298
Mercury	5536-04-19 02:52 G	3743150.51	3743150.62	3743150.73	0.1860	0.0698
Venus	5541-04-15 20:09 G	3744973.21	3744973.34	3744973.47	0.1771	0.1210
Mercury	5544-10-28 10:19 G	3746264.81	3746264.93	3746265.06	0.1658	0.1080
Mercury	5545-09-09 11:16 G	3746580.86	3746580.97	3746581.09	0.1867	0.0039
Venus	5545-12-01 14:52 G	3746664.04	3746664.12	3746664.21	0.1737	0.1477
Mercury	5555-01-30 19:26 G	3750011.20	3750011.31	3750011.42	0.1873	0.0732
Mercury	5556-02-25 07:11 G	3750401.71	3750401.80	3750401.88	0.1675	0.1427
Mercury	5564-06-22 03:35 G	3753441.57	3753441.65	3753441.72	0.1880	0.1477
Earth	5565-06-07 08:09 G	3753791.67	3753791.84	3753792.00	0.1630	0.0781
Moon	5565-06-07 10:33 G	3753791.77	3753791.94	3753792.12	0.1630	0.0817 *
Mercury	5565-07-17 08:09 G	3753831.69	3753831.84	3753831.99	0.1669	0.0598
Mercury	5566-05-28 18:14 G	3754147.19	3754147.26	3754147.33	0.1853	0.1442
Moon	5571-12-08 14:09 G	3756166.91	3756167.09	3756167.27	0.1906	0.0323
Earth	5571-12-08 14:38 G	3756166.92	3756167.11	3756167.30	0.1906	0.0632 *
Venus	5573-04-15 05:31 G	3756660.56	3756660.73	3756660.90	0.1785	0.0451
Mercury	5574-12-07 09:21 G	3757261.73	3757261.89	3757262.05	0.1663	0.0219
Mercury	5575-10-19 02:52 G	3757577.52	3757577.62	3757577.73	0.1860	0.0769
Venus	5579-09-29 19:26 G	3759019.14	3759019.31	3759019.48	0.1753	0.0248
Mercury	5584-04-28 11:02 G	3760691.83	3760691.96	3760692.09	0.1658	0.0995
Mercury	5585-03-10 11:31 G	3761007.86	3761007.98	3761008.09	0.1866	0.0087
Mercury	5594-07-31 19:26 G	3764438.20	3764438.31	3764438.42	0.1873	0.0662
Mercury	5595-08-26 07:55 G	3764828.76	3764828.83	3764828.89	0.1675	0.1526
Mercury	5603-12-22 03:35 G	3767868.57	3767868.65	3767868.73	0.1879	0.1403
Mercury	5605-01-15 08:38 G	3768258.72	3768258.86	3768259.01	0.1669	0.0689
Mercury	5605-11-26 18:14 G	3768574.20	3768574.26	3768574.33	0.1853	0.1512
Venus	5607-02-11 04:04 G	3769015.58	3769015.67	3769015.77	0.1767	0.1464
Venus	5611-09-29 00:14 G	3770706.39	3770706.51	3770706.63	0.1741	0.1263
Mercury	5614-06-07 10:04 G	3771688.76	3771688.92	3771689.08	0.1664	0.0120

Mercury	5615-04-19 03:07 G	3772004.52	3772004.63	3772004.73	0.1860	0.0840
Mercury	5623-10-28 11:45 G	3775118.85	3775118.99	3775119.12	0.1658	0.0903
Mercury	5624-09-08 11:16 G	3775434.86	3775434.97	3775435.09	0.1867	0.0144
Mercury	5634-01-29 19:40 G	3778865.21	3778865.32	3778865.43	0.1873	0.0581
Mercury	5635-02-24 08:24 G	3779255.81	3779255.85	3779255.89	0.1675	0.1617
Venus	5639-02-10 12:57 G	3780702.87	3780703.04	3780703.22	0.1781	0.0176
Mercury	5643-06-22 03:35 G	3782295.57	3782295.65	3782295.74	0.1879	0.1330
Mercury	5644-07-16 09:21 G	3782685.74	3782685.89	3782686.03	0.1669	0.0776
Mercury	5645-05-27 18:28 G	3783001.21	3783001.27	3783001.33	0.1853	0.1586
Venus	5645-07-27 04:33 G	3783061.52	3783061.69	3783061.85	0.1757	0.0481
Moon	5650-12-11 19:26 G	3785025.29	3785025.31	3785025.33	0.1902	0.1889
Mercury	5653-12-06 10:48 G	3786115.78	3786115.95	3786116.11	0.1664	0.0055
Mercury	5654-10-18 02:52 G	3786431.52	3786431.62	3786431.73	0.1860	0.0905
Mercury	5663-04-28 12:14 G	3789545.87	3789546.01	3789546.15	0.1658	0.0813
Mercury	5664-03-09 11:31 G	3789861.86	3789861.98	3789862.10	0.1866	0.0211
Mercury	5672-09-17 14:24 G	3792976.05	3792976.10	3792976.15	0.1653	0.1566
Venus	5672-12-08 12:00 G	3793057.97	3793058.00	3793058.03	0.1763	0.1722
Mercury	5673-07-30 19:40 G	3793292.21	3793292.32	3793292.43	0.1873	0.0517
Venus	5677-07-26 09:07 G	3794748.74	3794748.88	3794749.02	0.1744	0.1039
Mercury	5682-12-21 03:35 G	3796722.57	3796722.65	3796722.74	0.1880	0.1262
Mercury	5684-01-15 10:04 G	3797112.78	3797112.92	3797113.06	0.1669	0.0874
Mercury	5684-11-25 18:14 G	3797428.21	3797428.26	3797428.31	0.1853	0.1644
Earth	5691-06-04 06:28 G	3799809.63	3799809.77	3799809.93	0.1621	0.0980
Moon	5691-06-04 10:48 G	3799809.81	3799809.95	3799810.09	0.1621	0.1015 *
Mercury	5693-06-06 11:16 G	3800542.81	3800542.97	3800543.13	0.1664	0.0060
Mercury	5694-04-18 03:07 G	3800858.53	3800858.63	3800858.73	0.1860	0.0978
Mercury	5702-10-28 12:43 G	3803972.89	3803973.03	3803973.18	0.1658	0.0729
Mercury	5703-09-09 11:31 G	3804288.87	3804288.98	3804289.10	0.1866	0.0282
Venus	5704-12-08 20:09 G	3804745.16	3804745.34	3804745.51	0.1777	0.0121
Venus	5711-05-25 12:43 G	3807103.88	3807104.03	3807104.19	0.1761	0.0733

Mercury	5712-03-19 14:52 G	3807403.05	3807403.12	3807403.19	0.1653	0.1481
Mercury	5713-01-29 19:40 G	3807719.21	3807719.32	3807719.44	0.1873	0.0445
Mercury	5722-06-22 03:50 G	3811149.57	3811149.66	3811149.75	0.1879	0.1185
Mercury	5723-07-17 10:48 G	3811539.82	3811539.95	3811540.08	0.1669	0.0970
Mercury	5724-05-27 18:28 G	3811855.23	3811855.27	3811855.31	0.1853	0.1718
Mercury	5732-12-06 12:00 G	3814969.84	3814970.00	3814970.16	0.1664	0.0154
Mercury	5733-10-18 03:07 G	3815285.53	3815285.63	3815285.72	0.1859	0.1042
Venus	5736-12-08 06:43 G	3816432.71	3816432.78	3816432.85	0.1790	0.1617
Mercury	5742-04-28 13:26 G	3818399.91	3818400.06	3818400.21	0.1658	0.0636
Mercury	5743-03-10 11:31 G	3818715.87	3818715.98	3818716.10	0.1866	0.0348
Venus	5743-05-24 18:14 G	3818791.10	3818791.26	3818791.41	0.1748	0.0814
Mercury	5751-09-18 15:21 G	3821830.06	3821830.14	3821830.22	0.1653	0.1401
Mercury	5752-07-30 19:55 G	3822146.21	3822146.33	3822146.44	0.1873	0.0369
Mercury	5761-12-21 03:50 G	3825576.57	3825576.66	3825576.75	0.1879	0.1116
Mercury	5763-01-15 11:16 G	3825966.84	3825966.97	3825967.09	0.1670	0.1055
Mercury	5763-11-26 18:28 G	3826282.24	3826282.27	3826282.30	0.1852	0.1787
Moon	5770-06-07 06:57 G	3828666.61	3828666.79	3828666.97	0.1624	0.0161
Earth	5770-06-07 09:35 G	3828666.71	3828666.90	3828667.09	0.1624	0.0192 *
Venus	5770-10-06 03:35 G	3828787.48	3828787.65	3828787.83	0.1773	0.0381
Mercury	5771-05-13 11:45 G	3829006.98	3829006.99	3829006.99	0.1885	0.1876
Mercury	5772-06-06 12:43 G	3829396.87	3829397.03	3829397.19	0.1664	0.0250
Mercury	5773-04-18 03:07 G	3829712.54	3829712.63	3829712.72	0.1859	0.1113
Venus	5777-03-21 21:07 G	3831146.24	3831146.38	3831146.53	0.1765	0.0987
Mercury	5781-10-27 14:09 G	3832826.93	3832827.09	3832827.24	0.1658	0.0549
Mercury	5782-09-08 11:31 G	3833142.87	3833142.98	3833143.10	0.1866	0.0422
Mercury	5791-03-19 16:04 G	3836257.07	3836257.17	3836257.27	0.1653	0.1308
Mercury	5792-01-29 19:55 G	3836573.21	3836573.33	3836573.44	0.1873	0.0309
Mercury	5801-06-22 03:50 G	3840003.57	3840003.66	3840003.76	0.1879	0.1043
Mercury	5802-07-17 12:00 G	3840393.89	3840394.00	3840394.12	0.1670	0.1159
Venus	5802-10-06 13:26 G	3840474.95	3840475.06	3840475.18	0.1786	0.1321

Mercury	5803-05-28 18:28 G	3840709.27	3840709.27	3840709.27	0.1852	0.1850
Venus	5809-03-22 02:38 G	3842833.44	3842833.61	3842833.77	0.1752	0.0573
Mercury	5810-11-12 11:45 G	3843433.96	3843433.99	3843434.02	0.1885	0.1803
Mercury	5811-12-07 12:57 G	3843823.88	3843824.04	3843824.20	0.1664	0.0331
Mercury	5812-10-18 03:07 G	3844139.54	3844139.63	3844139.72	0.1859	0.1184
Mercury	5821-04-28 14:38 G	3847253.96	3847254.11	3847254.27	0.1659	0.0460
Mercury	5822-03-10 11:45 G	3847569.88	3847569.99	3847570.10	0.1866	0.0492
Mercury	5830-09-18 16:48 G	3850684.09	3850684.20	3850684.31	0.1653	0.1219
Mercury	5831-07-31 19:55 G	3851000.21	3851000.33	3851000.45	0.1873	0.0231
Venus	5836-08-03 11:02 G	3852829.80	3852829.96	3852830.13	0.1769	0.0653
Mercury	5840-12-21 04:04 G	3854430.57	3854430.67	3854430.77	0.1879	0.0973
Mercury	5842-01-15 12:43 G	3854820.92	3854821.03	3854821.14	0.1670	0.1248
Venus	5843-01-18 05:16 G	3855188.60	3855188.72	3855188.84	0.1769	0.1251
Moon	5849-06-10 05:16 G	3857523.63	3857523.72	3857523.81	0.1626	0.1417
Earth	5849-06-10 12:00 G	3857523.90	3857524.00	3857524.10	0.1626	0.1360
Mercury	5850-05-13 11:45 G	3857860.95	3857860.99	3857861.03	0.1885	0.1736
Mercury	5851-06-07 13:55 G	3858250.92	3858251.08	3858251.23	0.1664	0.0429
Mercury	5852-04-18 03:07 G	3858566.55	3858566.63	3858566.72	0.1859	0.1252
Earth	5855-12-09 19:55 G	3859897.17	3859897.33	3859897.48	0.1913	0.1236
Moon	5855-12-10 02:38 G	3859897.42	3859897.61	3859897.81	0.1913	0.0812 *
Mercury	5860-10-27 15:21 G	3861680.98	3861681.14	3861681.30	0.1659	0.0368
Mercury	5861-09-08 11:31 G	3861996.87	3861996.98	3861997.10	0.1866	0.0560
Venus	5868-08-02 20:38 G	3864517.22	3864517.36	3864517.50	0.1782	0.1035
Mercury	5870-03-19 17:02 G	3865111.10	3865111.21	3865111.33	0.1653	0.1142
Mercury	5871-01-29 20:09 G	3865427.22	3865427.34	3865427.45	0.1872	0.0167
Venus	5875-01-17 11:16 G	3866875.80	3866875.97	3866876.14	0.1756	0.0334
Mercury	5880-06-21 04:04 G	3868857.56	3868857.67	3868857.77	0.1879	0.0900
Mercury	5881-07-16 13:11 G	3869247.95	3869248.05	3869248.15	0.1670	0.1337
Mercury	5889-11-11 11:45 G	3872287.94	3872287.99	3872288.05	0.1885	0.1662
Mercury	5890-12-06 14:24 G	3872677.95	3872678.10	3872678.26	0.1664	0.0522

Mercury	5891-10-18 03:07 G	3872993.55	3872993.63	3872993.71	0.1859	0.1317
Moon	5896-06-04 05:16 G	3874684.64	3874684.72	3874684.80	0.1616	0.1467
Earth	5896-06-04 10:04 G	3874684.86	3874684.92	3874684.99	0.1616	0.1506
Mercury	5900-04-28 15:50 G	3876108.00	3876108.16	3876108.32	0.1659	0.0282
Mercury	5901-03-10 11:45 G	3876423.88	3876423.99	3876424.10	0.1866	0.0631
Venus	5902-06-01 18:57 G	3876872.15	3876872.29	3876872.44	0.1765	0.0914
Venus	5908-11-15 13:26 G	3879230.97	3879231.06	3879231.15	0.1773	0.1518
Mercury	5909-09-18 18:00 G	3879538.12	3879538.25	3879538.37	0.1654	0.1047
Mercury	5910-07-31 19:55 G	3879854.21	3879854.33	3879854.45	0.1872	0.0098
Mercury	5919-12-22 04:04 G	3883284.56	3883284.67	3883284.78	0.1879	0.0829
Mercury	5921-01-15 13:55 G	3883675.00	3883675.08	3883675.16	0.1670	0.1437
Mercury	5929-05-13 12:00 G	3886714.94	3886715.00	3886715.06	0.1885	0.1581
Mercury	5930-06-07 14:52 G	3887104.97	3887105.12	3887105.28	0.1664	0.0609
Mercury	5931-04-19 03:21 G	3887420.56	3887420.64	3887420.72	0.1859	0.1392
Venus	5934-06-01 03:35 G	3888559.50	3888559.65	3888559.81	0.1778	0.0741
Moon	5934-12-14 17:16 G	3888756.15	3888756.22	3888756.29	0.1908	0.1766
Mercury	5939-10-28 16:33 G	3890535.03	3890535.19	3890535.35	0.1659	0.0192
Mercury	5940-09-08 11:45 G	3890850.88	3890850.99	3890851.10	0.1865	0.0698
Venus	5940-11-14 19:55 G	3890918.16	3890918.33	3890918.51	0.1760	0.0092
Mercury	5949-03-19 18:28 G	3893965.14	3893965.27	3893965.40	0.1654	0.0961
Mercury	5950-01-29 20:09 G	3894281.22	3894281.34	3894281.45	0.1872	0.0070
Mercury	5959-06-22 04:04 G	3897711.57	3897711.67	3897711.78	0.1878	0.0757
Mercury	5960-07-16 14:38 G	3898102.05	3898102.11	3898102.17	0.1670	0.1533
Venus	5968-03-29 02:38 G	3900914.48	3900914.61	3900914.74	0.1760	0.1177
Mercury	5968-11-11 12:00 G	3901141.93	3901142.00	3901142.06	0.1885	0.1521
Mercury	5969-12-06 15:35 G	3901532.01	3901532.15	3901532.30	0.1664	0.0704
Mercury	5970-10-18 03:21 G	3901847.57	3901847.64	3901847.71	0.1859	0.1453
Venus	5972-11-14 01:11 G	3902605.49	3902605.55	3902605.61	0.1747	0.1625
Earth	5975-06-08 11:31 G	3903541.79	3903541.98	3903542.16	0.1618	0.0384
Moon	5975-06-08 13:40 G	3903541.88	3903542.07	3903542.27	0.1618	0.0366 *

Mercury	5979-04-28 17:02 G	3904962.05	3904962.21	3904962.38	0.1659	0.0106
Mercury	5980-03-09 11:45 G	3905277.89	3905277.99	3905278.10	0.1866	0.0765
Mercury	5988-09-17 18:57 G	3908392.15	3908392.29	3908392.42	0.1654	0.0878
Mercury	5989-07-30 20:09 G	3908708.22	3908708.34	3908708.46	0.1872	0.0064
Mercury	5998-02-07 21:07 G	3911822.36	3911822.38	3911822.41	0.1649	0.1617
Mercury	5998-12-21 04:04 G	3912138.56	3912138.67	3912138.78	0.1878	0.0689
Mercury	6000-01-15 15:07 G	3912529.09	3912529.13	3912529.17	0.1670	0.1619
Venus	6000-03-28 10:48 G	3912601.78	3912601.95	3912602.12	0.1774	0.0454

7TH MILLENNIUM CE

This is a list of transits visible from Mars in the 7th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	6006-09-12 04:04 G		3914960.50	3914960.67	3914960.84	0.1764	0.0166	
Mercury	6008-05-12 12:00 G		3915568.93	3915569.00	3915569.08	0.1885	0.1441	
Mercury	6009-06-06 16:19 G		3915959.04	3915959.18	3915959.33	0.1665	0.0798	
Mercury	6010-04-18 03:21 G		3916274.57	3916274.64	3916274.70	0.1859	0.1523	
Mercury	6018-10-27 17:45 G		3919389.08	3919389.24	3919389.40	0.1659	0.0010	
Mercury	6019-09-08 11:45 G		3919704.89	3919704.99	3919705.10	0.1865	0.0838	
Mercury	6028-03-18 19:40 G		3922819.18	3922819.32	3922819.46	0.1654	0.0785	
Mercury	6029-01-28 20:09 G		3923135.22	3923135.34	3923135.46	0.1872	0.0122	
Venus	6034-01-24 11:02 G		3924956.86	3924956.96	3924957.06	0.1757	0.1423	
Mercury	6037-08-08 21:50 G		3926249.35	3926249.41	3926249.46	0.1649	0.1534	
Mercury	6038-06-21 04:19 G		3926565.57	3926565.68	3926565.79	0.1879	0.0610	

Venus	6038-09-11 10:04 G	3926647.82	3926647.92	3926648.02	0.1751	0.1398
Mercury	6047-11-11 12:14 G	3929995.93	3929996.01	3929996.09	0.1884	0.1370
Mercury	6048-12-05 16:48 G	3930386.06	3930386.20	3930386.34	0.1665	0.0879
Mercury	6049-10-17 03:21 G	3930701.58	3930701.64	3930701.70	0.1859	0.1594
Earth	6054-06-10 13:11 G	3932398.89	3932399.05	3932399.22	0.1620	0.0772
Moon	6054-06-10 19:26 G	3932399.15	3932399.31	3932399.47	0.1620	0.0796 *
Mercury	6058-04-27 18:14 G	3933816.10	3933816.26	3933816.43	0.1659	0.0094
Mercury	6059-03-09 12:00 G	3934131.90	3934132.00	3934132.10	0.1865	0.0909
Venus	6066-01-23 18:28 G	3936644.10	3936644.27	3936644.45	0.1770	0.0184
Mercury	6067-09-17 20:09 G	3937246.20	3937246.34	3937246.49	0.1654	0.0696
Mercury	6068-07-29 20:09 G	3937562.23	3937562.34	3937562.46	0.1872	0.0197
Venus	6072-07-09 12:43 G	3939002.86	3939003.03	3939003.20	0.1767	0.0416
Mercury	6077-02-06 22:19 G	3940676.36	3940676.43	3940676.51	0.1649	0.1447
Mercury	6077-12-20 04:19 G	3940992.57	3940992.68	3940992.79	0.1878	0.0545
Mercury	6087-05-12 12:14 G	3944422.92	3944423.01	3944423.09	0.1885	0.1301
Mercury	6088-06-05 17:31 G	3944813.10	3944813.23	3944813.37	0.1665	0.0983
Mercury	6089-04-17 03:21 G	3945128.59	3945128.64	3945128.69	0.1858	0.1660
Mercury	6097-10-26 18:57 G	3948243.13	3948243.29	3948243.45	0.1659	0.0170
Mercury	6098-09-07 11:45 G	3948558.90	3948558.99	3948559.09	0.1865	0.0976
Venus	6099-11-21 18:57 G	3948999.24	3948999.29	3948999.34	0.1753	0.1679
Venus	6104-07-09 18:28 G	3950690.15	3950690.27	3950690.40	0.1754	0.1161
Mercury	6107-03-19 20:38 G	3951673.21	3951673.36	3951673.51	0.1654	0.0618
Mercury	6108-01-29 20:24 G	3951989.23	3951989.35	3951989.46	0.1872	0.0274
Mercury	6116-08-08 23:02 G	3955103.37	3955103.46	3955103.55	0.1649	0.1358
Mercury	6117-06-21 04:19 G	3955419.57	3955419.68	3955419.80	0.1878	0.0471
Mercury	6126-11-11 12:14 G	3958849.92	3958850.01	3958850.10	0.1884	0.1225
Mercury	6127-12-06 18:14 G	3959240.14	3959240.26	3959240.38	0.1665	0.1074
Mercury	6128-10-17 03:21 G	3959555.60	3959555.64	3959555.68	0.1858	0.1726
Venus	6131-11-22 01:40 G	3960686.39	3960686.57	3960686.74	0.1766	0.0101
Mercury	6137-04-27 19:40 G	3962670.15	3962670.32	3962670.48	0.1659	0.0264

Mercury	6138-03-09 12:00 G	3962985.90	3962986.00	3962986.09	0.1865	0.1046
Venus	6138-05-07 20:38 G	3963045.20	3963045.36	3963045.52	0.1771	0.0687
Mercury	6146-09-17 21:21 G	3966100.24	3966100.39	3966100.54	0.1654	0.0520
Mercury	6147-07-30 20:09 G	3966416.23	3966416.34	3966416.46	0.1872	0.0334
Mercury	6156-02-07 23:31 G	3969530.38	3969530.48	3969530.58	0.1649	0.1280
Mercury	6156-12-20 04:19 G	3969846.57	3969846.68	3969846.80	0.1878	0.0401
Venus	6163-11-21 10:48 G	3972373.88	3972373.95	3972374.03	0.1779	0.1594
Mercury	6166-05-12 12:28 G	3973276.92	3973277.02	3973277.11	0.1884	0.1150
Mercury	6167-06-06 18:43 G	3973667.16	3973667.28	3973667.40	0.1665	0.1159
Mercury	6168-04-17 03:35 G	3973982.62	3973982.65	3973982.67	0.1858	0.1802
Venus	6170-05-07 02:52 G	3974732.48	3974732.62	3974732.77	0.1759	0.0918
Mercury	6176-10-26 20:09 G	3977097.18	3977097.34	3977097.50	0.1660	0.0350
Mercury	6177-09-07 12:00 G	3977412.91	3977413.00	3977413.09	0.1865	0.1112
Moon	6180-06-07 11:45 G	3978416.84	3978416.99	3978417.13	0.1613	0.0882
Earth	6180-06-07 14:52 G	3978416.97	3978417.12	3978417.28	0.1613	0.0908 *
Mercury	6186-03-18 21:50 G	3980527.26	3980527.41	3980527.57	0.1654	0.0435
Mercury	6187-01-28 20:24 G	3980843.23	3980843.35	3980843.46	0.1872	0.0407
Mercury	6195-08-09 00:00 G	3983957.39	3983957.50	3983957.61	0.1649	0.1187
Mercury	6196-06-20 04:33 G	3984273.57	3984273.69	3984273.80	0.1878	0.0334
Venus	6197-09-18 09:50 G	3984728.74	3984728.91	3984729.08	0.1762	0.0358
Venus	6204-03-05 04:33 G	3987087.54	3987087.69	3987087.83	0.1776	0.0958
Mercury	6205-11-11 12:14 G	3987703.92	3987704.01	3987704.11	0.1885	0.1087
Mercury	6206-12-06 19:26 G	3988094.20	3988094.31	3988094.42	0.1665	0.1257
Mercury	6215-04-03 20:09 G	3991134.32	3991134.34	3991134.36	0.1890	0.1852
Mercury	6216-04-27 20:38 G	3991524.21	3991524.36	3991524.52	0.1660	0.0443
Mercury	6217-03-09 12:00 G	3991839.91	3991840.00	3991840.09	0.1865	0.1182
Moon	6218-12-15 14:38 G	3992485.93	3992486.11	3992486.28	0.1915	0.1209
Earth	6218-12-15 14:52 G	3992485.97	3992486.12	3992486.26	0.1915	0.1294 *
Mercury	6225-09-17 22:19 G	3994954.28	3994954.43	3994954.59	0.1654	0.0352
Mercury	6226-07-30 20:24 G	3995270.24	3995270.35	3995270.47	0.1871	0.0481

Venus	6229-09-18 18:14 G	3996416.14	3996416.26	3996416.37	0.1775	0.1306
Mercury	6235-02-08 00:43 G	3998384.41	3998384.53	3998384.65	0.1649	0.1102
Mercury	6235-12-21 04:19 G	3998700.57	3998700.68	3998700.80	0.1878	0.0270
Venus	6236-03-04 11:02 G	3998774.80	3998774.96	3998775.12	0.1762	0.0660
Mercury	6245-05-12 12:28 G	4002130.92	4002131.02	4002131.12	0.1884	0.1006
Mercury	6246-06-06 20:09 G	4002521.25	4002521.34	4002521.43	0.1665	0.1353
Mercury	6254-10-02 20:09 G	4005561.30	4005561.34	4005561.37	0.1890	0.1790
Mercury	6255-10-27 21:21 G	4005951.24	4005951.39	4005951.55	0.1660	0.0535
Mercury	6256-09-07 12:00 G	4006266.92	4006267.00	4006267.09	0.1865	0.1251
Moon	6259-06-11 09:35 G	4007273.71	4007273.90	4007274.09	0.1615	0.0177
Earth	6259-06-11 16:19 G	4007273.99	4007274.18	4007274.37	0.1615	0.0214 *
Venus	6263-07-17 17:16 G	4008771.06	4008771.22	4008771.39	0.1758	0.0626
Mercury	6265-03-18 23:02 G	4009381.30	4009381.46	4009381.62	0.1654	0.0257
Mercury	6266-01-28 20:24 G	4009697.24	4009697.35	4009697.46	0.1872	0.0542
Venus	6269-12-31 12:14 G	4011129.88	4011130.01	4011130.13	0.1780	0.1236
Mercury	6274-08-09 01:11 G	4012811.42	4012811.55	4012811.67	0.1649	0.1021
Mercury	6275-06-21 04:33 G	4013127.57	4013127.69	4013127.81	0.1878	0.0182
Mercury	6284-11-10 12:28 G	4016557.92	4016558.02	4016558.12	0.1884	0.0935
Mercury	6285-12-05 20:38 G	4016948.28	4016948.36	4016948.44	0.1665	0.1437
Mercury	6294-04-02 20:09 G	4019988.29	4019988.34	4019988.39	0.1890	0.1710
Mercury	6295-04-27 22:04 G	4020378.27	4020378.42	4020378.57	0.1660	0.0626
Venus	6295-07-17 01:40 G	4020458.43	4020458.57	4020458.71	0.1772	0.1028
Mercury	6296-03-08 12:00 G	4020693.92	4020694.00	4020694.08	0.1865	0.1323
Venus	6301-12-31 19:11 G	4022817.13	4022817.30	4022817.47	0.1766	0.0410
Mercury	6304-09-17 23:45 G	4023808.33	4023808.49	4023808.65	0.1654	0.0166
Mercury	6305-07-30 20:24 G	4024124.24	4024124.35	4024124.46	0.1871	0.0616
Mercury	6314-02-08 01:40 G	4027238.44	4027238.57	4027238.71	0.1649	0.0930
Mercury	6314-12-21 04:33 G	4027554.57	4027554.69	4027554.81	0.1878	0.0118
Mercury	6324-05-12 12:28 G	4030984.92	4030985.02	4030985.13	0.1884	0.0865
Mercury	6325-06-06 21:21 G	4031375.33	4031375.39	4031375.45	0.1665	0.1540

Venus	6329-05-15 01:40 G	4032813.42	4032813.57	4032813.72	0.1754	0.0879
Mercury	6333-10-02 20:24 G	4034415.29	4034415.35	4034415.40	0.1890	0.1635
Mercury	6334-10-27 22:33 G	4034805.29	4034805.44	4034805.59	0.1660	0.0714
Mercury	6335-09-08 12:00 G	4035120.93	4035121.00	4035121.08	0.1865	0.1389
Venus	6335-10-29 19:55 G	4035172.24	4035172.33	4035172.41	0.1784	0.1518
Moon	6338-06-14 15:21 G	4036131.01	4036131.14	4036131.27	0.1617	0.1211
Earth	6338-06-14 17:31 G	4036131.13	4036131.23	4036131.33	0.1617	0.1351 *
Mercury	6344-03-19 00:00 G	4038235.34	4038235.50	4038235.67	0.1655	0.0096
Mercury	6345-01-28 20:38 G	4038551.25	4038551.36	4038551.46	0.1871	0.0691
Mercury	6353-08-09 02:24 G	4041665.46	4041665.60	4041665.74	0.1650	0.0838
Mercury	6354-06-21 04:33 G	4041981.57	4041981.69	4041981.81	0.1878	0.0049
Venus	6361-05-14 08:52 G	4044500.72	4044500.87	4044501.03	0.1767	0.0744
Mercury	6362-12-30 04:48 G	4045095.66	4045095.70	4045095.74	0.1645	0.1580
Mercury	6363-11-11 12:43 G	4045411.92	4045412.03	4045412.13	0.1884	0.0794
Mercury	6364-12-05 22:04 G	4045802.39	4045802.42	4045802.44	0.1666	0.1633
Venus	6367-10-29 03:35 G	4046859.48	4046859.65	4046859.82	0.1770	0.0154
Mercury	6373-04-02 20:09 G	4048842.28	4048842.34	4048842.41	0.1890	0.1569
Mercury	6374-04-27 23:16 G	4049232.32	4049232.47	4049232.61	0.1660	0.0808
Mercury	6375-03-09 12:14 G	4049547.94	4049548.01	4049548.08	0.1864	0.1461
Mercury	6383-09-18 00:57 G	4052662.38	4052662.54	4052662.70	0.1655	0.0024
Mercury	6384-07-29 20:24 G	4052978.25	4052978.35	4052978.46	0.1871	0.0754
Earth	6385-06-08 18:57 G	4053292.21	4053292.29	4053292.38	0.1609	0.1412
Moon	6385-06-08 22:48 G	4053292.38	4053292.45	4053292.54	0.1609	0.1463 *
Mercury	6393-02-07 02:52 G	4056092.47	4056092.62	4056092.76	0.1649	0.0762
Mercury	6393-12-20 04:48 G	4056408.58	4056408.70	4056408.81	0.1878	0.0081
Venus	6395-03-12 09:35 G	4056855.76	4056855.90	4056856.03	0.1750	0.1135
Venus	6399-10-28 09:50 G	4058546.90	4058546.91	4058546.93	0.1757	0.1744
Mercury	6402-06-30 05:16 G	4059522.66	4059522.72	4059522.79	0.1645	0.1496
Mercury	6403-05-12 12:43 G	4059838.92	4059839.03	4059839.14	0.1884	0.0716
Mercury	6412-10-01 20:24 G	4063269.28	4063269.35	4063269.42	0.1890	0.1494

Mercury	6413-10-26 23:45 G	4063659.36	4063659.49	4063659.63	0.1660	0.0902
Mercury	6414-09-07 12:14 G	4063974.94	4063975.01	4063975.07	0.1864	0.1528
Mercury	6423-03-19 01:26 G	4067089.40	4067089.56	4067089.72	0.1655	0.0101
Mercury	6424-01-28 20:38 G	4067405.25	4067405.36	4067405.46	0.1871	0.0829
Venus	6427-03-11 16:19 G	4068543.01	4068543.18	4068543.35	0.1763	0.0465
Mercury	6432-08-08 03:35 G	4070519.50	4070519.65	4070519.79	0.1650	0.0666
Mercury	6433-06-20 04:48 G	4070835.58	4070835.70	4070835.81	0.1877	0.0119
Venus	6433-08-25 11:16 G	4070901.80	4070901.97	4070902.14	0.1774	0.0119
Mercury	6441-12-29 05:45 G	4073949.66	4073949.74	4073949.82	0.1645	0.1411
Mercury	6442-11-10 12:43 G	4074265.92	4074266.03	4074266.14	0.1884	0.0654
Mercury	6452-04-01 20:38 G	4077696.28	4077696.36	4077696.43	0.1890	0.1411
Mercury	6453-04-27 00:28 G	4078086.39	4078086.52	4078086.65	0.1660	0.0991
Mercury	6454-03-08 12:14 G	4078401.95	4078402.01	4078402.07	0.1865	0.1599
Venus	6461-01-06 18:14 G	4080898.16	4080898.26	4080898.37	0.1746	0.1375
Mercury	6462-09-17 01:55 G	4081516.42	4081516.58	4081516.74	0.1655	0.0189
Mercury	6463-07-29 20:38 G	4081832.26	4081832.36	4081832.46	0.1871	0.0901
Earth	6464-06-10 19:40 G	4082149.14	4082149.32	4082149.51	0.1610	0.0313
Moon	6464-06-11 02:09 G	4082149.41	4082149.59	4082149.78	0.1611	0.0263 *
Venus	6465-08-24 18:28 G	4082589.18	4082589.27	4082589.36	0.1761	0.1506
Mercury	6472-02-07 04:04 G	4084946.52	4084946.67	4084946.82	0.1650	0.0579
Mercury	6472-12-19 04:33 G	4085262.58	4085262.69	4085262.81	0.1877	0.0183
Mercury	6481-06-29 06:28 G	4088376.68	4088376.77	4088376.86	0.1645	0.1322
Mercury	6482-05-11 12:43 G	4088692.92	4088693.03	4088693.15	0.1884	0.0574
Mercury	6491-10-01 20:24 G	4092123.27	4092123.35	4092123.43	0.1890	0.1350
Mercury	6492-10-26 00:57 G	4092513.42	4092513.54	4092513.67	0.1660	0.1087
Venus	6493-01-06 00:43 G	4092585.35	4092585.53	4092585.70	0.1759	0.0207
Mercury	6493-09-06 12:14 G	4092828.96	4092829.01	4092829.06	0.1864	0.1666
Venus	6499-06-22 19:40 G	4094944.15	4094944.32	4094944.49	0.1778	0.0380
Mercury	6502-03-19 02:38 G	4095943.45	4095943.61	4095943.77	0.1655	0.0282
Moon	6502-12-16 07:55 G	4096215.65	4096215.83	4096216.02	0.1921	0.0511

Earth	6502-12-16 15:50 G	4096215.97	4096216.16	4096216.35	0.1921	0.0571 *
Mercury	6503-01-28 20:38 G	4096259.26	4096259.36	4096259.46	0.1871	0.0965
Mercury	6511-08-09 04:33 G	4099373.54	4099373.69	4099373.84	0.1650	0.0495
Mercury	6512-06-20 04:48 G	4099689.59	4099689.70	4099689.82	0.1878	0.0251
Mercury	6520-12-29 06:57 G	4102803.69	4102803.79	4102803.89	0.1645	0.1239
Mercury	6521-11-10 12:43 G	4103119.92	4103120.03	4103120.15	0.1883	0.0506
Venus	6526-11-05 02:24 G	4104940.54	4104940.60	4104940.67	0.1742	0.1623
Mercury	6531-04-02 20:38 G	4106550.27	4106550.36	4106550.45	0.1890	0.1269
Venus	6531-06-23 02:38 G	4106631.49	4106631.61	4106631.73	0.1765	0.1257
Mercury	6532-04-27 01:40 G	4106940.46	4106940.57	4106940.68	0.1661	0.1179
Mercury	6533-03-08 12:14 G	4107255.97	4107256.01	4107256.05	0.1864	0.1736
Mercury	6541-09-17 03:21 G	4110370.48	4110370.64	4110370.79	0.1655	0.0376
Mercury	6542-07-29 20:38 G	4110686.27	4110686.36	4110686.46	0.1871	0.1039
Earth	6543-06-14 21:07 G	4111006.22	4111006.38	4111006.54	0.1612	0.0807
Moon	6543-06-14 22:04 G	4111006.27	4111006.42	4111006.57	0.1612	0.0878 *
Mercury	6551-02-07 05:16 G	4113800.56	4113800.72	4113800.87	0.1650	0.0402
Mercury	6551-12-20 04:48 G	4114116.58	4114116.70	4114116.82	0.1877	0.0312
Venus	6558-11-04 08:09 G	4116627.66	4116627.84	4116628.01	0.1755	0.0077
Mercury	6560-06-29 07:40 G	4117230.70	4117230.82	4117230.93	0.1645	0.1151
Mercury	6561-05-11 12:57 G	4117546.92	4117547.04	4117547.15	0.1884	0.0432
Venus	6565-04-20 03:07 G	4118986.47	4118986.63	4118986.79	0.1782	0.0667
Mercury	6570-10-01 20:38 G	4120977.27	4120977.36	4120977.45	0.1890	0.1194
Mercury	6571-10-27 02:09 G	4121367.49	4121367.59	4121367.70	0.1660	0.1268
Mercury	6572-09-06 12:14 G	4121682.99	4121683.01	4121683.04	0.1864	0.1805
Mercury	6581-03-18 03:50 G	4124797.50	4124797.66	4124797.81	0.1655	0.0461
Mercury	6582-01-27 20:38 G	4125113.27	4125113.36	4125113.46	0.1871	0.1113
Mercury	6590-08-08 05:45 G	4128227.59	4128227.74	4128227.90	0.1650	0.0313
Venus	6590-11-03 16:04 G	4128315.10	4128315.17	4128315.24	0.1769	0.1590
Mercury	6591-06-20 04:48 G	4128543.59	4128543.70	4128543.82	0.1877	0.0391
Venus	6597-04-19 10:33 G	4130673.80	4130673.94	4130674.09	0.1769	0.1001

Mercury	6599-12-29 08:09 G	4131657.72	4131657.84	4131657.96	0.1645	0.1065
Mercury	6600-11-10 12:57 G	4131973.92	4131974.04	4131974.15	0.1883	0.0356
Mercury	6610-04-02 20:38 G	4135404.27	4135404.36	4135404.46	0.1890	0.1126
Mercury	6611-04-28 02:52 G	4135794.53	4135794.62	4135794.71	0.1661	0.1366
Mercury	6620-09-17 04:33 G	4139224.53	4139224.69	4139224.84	0.1655	0.0559
Mercury	6621-07-29 20:38 G	4139540.27	4139540.36	4139540.45	0.1871	0.1177
Venus	6624-09-01 16:33 G	4140670.02	4140670.19	4140670.37	0.1751	0.0323
Mercury	6630-02-07 06:14 G	4142654.60	4142654.76	4142654.92	0.1650	0.0231
Mercury	6630-12-20 05:02 G	4142970.59	4142970.71	4142970.82	0.1877	0.0464
Venus	6631-02-16 10:48 G	4143028.80	4143028.95	4143029.09	0.1787	0.0951
Mercury	6639-06-30 08:38 G	4146084.73	4146084.86	4146084.99	0.1645	0.0977
Mercury	6640-05-11 12:57 G	4146400.93	4146401.04	4146401.16	0.1883	0.0286
Mercury	6649-10-01 20:52 G	4149831.27	4149831.37	4149831.46	0.1890	0.1052
Mercury	6650-10-27 03:35 G	4150221.58	4150221.65	4150221.73	0.1661	0.1462
Venus	6656-08-31 23:45 G	4152357.38	4152357.49	4152357.61	0.1765	0.1313
Mercury	6659-02-22 04:19 G	4153261.66	4153261.68	4153261.71	0.1895	0.1838
Mercury	6660-03-18 05:02 G	4153651.56	4153651.71	4153651.86	0.1655	0.0647
Mercury	6661-01-27 20:52 G	4153967.28	4153967.37	4153967.45	0.1871	0.1253
Venus	6663-02-15 18:28 G	4154716.11	4154716.27	4154716.43	0.1773	0.0733
Moon	6669-06-11 19:11 G	4157024.14	4157024.30	4157024.46	0.1606	0.0891
Earth	6669-06-12 01:11 G	4157024.39	4157024.55	4157024.71	0.1606	0.0801 *
Mercury	6669-08-08 06:57 G	4157081.63	4157081.79	4157081.95	0.1650	0.0134
Mercury	6670-06-20 05:02 G	4157397.59	4157397.71	4157397.82	0.1877	0.0531
Mercury	6678-12-29 09:21 G	4160511.75	4160511.89	4160512.02	0.1645	0.0892
Mercury	6679-11-10 12:57 G	4160827.93	4160828.04	4160828.16	0.1884	0.0215
Mercury	6688-05-20 11:45 G	4163941.97	4163941.99	4163942.01	0.1641	0.1622
Mercury	6689-04-01 20:52 G	4164258.27	4164258.37	4164258.48	0.1889	0.0969
Mercury	6690-04-27 04:04 G	4164648.62	4164648.67	4164648.73	0.1661	0.1550
Venus	6690-06-30 00:43 G	4164712.37	4164712.53	4164712.69	0.1747	0.0578
Venus	6696-12-13 18:00 G	4167071.13	4167071.25	4167071.38	0.1791	0.1244

Mercury	6698-08-23 04:19 G	4167688.64	4167688.68	4167688.72	0.1895	0.1767
Mercury	6699-09-17 05:31 G	4168078.59	4168078.73	4168078.88	0.1656	0.0738
Mercury	6700-07-29 20:52 G	4168394.29	4168394.37	4168394.45	0.1870	0.1325
Mercury	6709-02-07 07:40 G	4171508.66	4171508.82	4171508.98	0.1650	0.0050
Mercury	6709-12-20 05:02 G	4171824.60	4171824.71	4171824.82	0.1877	0.0601
Mercury	6718-06-30 09:50 G	4174938.77	4174938.91	4174939.05	0.1645	0.0800
Mercury	6719-05-12 13:11 G	4175254.93	4175255.05	4175255.17	0.1883	0.0132
Venus	6722-06-30 07:40 G	4176399.68	4176399.82	4176399.96	0.1761	0.1044
Mercury	6727-11-20 12:28 G	4178368.97	4178369.02	4178369.07	0.1641	0.1531
Mercury	6728-10-01 20:52 G	4178685.27	4178685.37	4178685.47	0.1889	0.0906
Venus	6728-12-14 02:38 G	4178758.44	4178758.61	4178758.77	0.1777	0.0469
Mercury	6729-10-27 04:48 G	4179075.69	4179075.70	4179075.72	0.1661	0.1649
Mercury	6738-02-22 04:33 G	4182115.64	4182115.69	4182115.74	0.1895	0.1686
Mercury	6739-03-19 06:14 G	4182505.62	4182505.76	4182505.90	0.1655	0.0832
Mercury	6740-01-28 20:52 G	4182821.29	4182821.37	4182821.44	0.1870	0.1389
Moon	6748-06-15 01:11 G	4185881.35	4185881.55	4185881.75	0.1608	0.0275
Earth	6748-06-15 01:26 G	4185881.38	4185881.56	4185881.75	0.1608	0.0297 *
Mercury	6748-08-08 08:09 G	4185935.68	4185935.84	4185936.00	0.1650	0.0047
Mercury	6749-06-20 05:16 G	4186251.61	4186251.72	4186251.82	0.1877	0.0685
Venus	6756-04-27 09:21 G	4188754.73	4188754.89	4188755.04	0.1743	0.0822
Mercury	6757-12-29 10:19 G	4189365.79	4189365.93	4189366.08	0.1646	0.0715
Mercury	6758-11-10 13:11 G	4189681.93	4189682.05	4189682.17	0.1883	0.0063
Venus	6762-10-12 01:26 G	4191113.47	4191113.56	4191113.65	0.1795	0.1540
Mercury	6767-05-21 12:57 G	4192795.97	4192796.04	4192796.12	0.1641	0.1446
Mercury	6768-04-01 21:07 G	4193112.27	4193112.38	4193112.48	0.1889	0.0826
Mercury	6777-08-23 04:33 G	4196542.63	4196542.69	4196542.75	0.1895	0.1614
Mercury	6778-09-17 06:57 G	4196932.66	4196932.79	4196932.92	0.1656	0.0928
Mercury	6779-07-29 20:52 G	4197248.30	4197248.37	4197248.44	0.1870	0.1466
Earth	6786-12-17 15:50 G	4199945.96	4199946.16	4199946.37	0.1926	0.0193
Moon	6786-12-18 01:40 G	4199946.38	4199946.57	4199946.77	0.1926	0.0354

Mercury	6788-02-07 08:52 G	4200362.71	4200362.87	4200363.03	0.1650	0.0142
Venus	6788-04-26 15:36 G	4200441.99	4200442.15	4200442.30	0.1757	0.0773
Mercury	6788-12-19 05:02 G	4200678.61	4200678.71	4200678.82	0.1877	0.0746
Venus	6794-10-11 10:19 G	4202800.76	4202800.93	4202801.11	0.1781	0.0201
Mercury	6797-06-29 11:02 G	4203792.81	4203792.96	4203793.11	0.1645	0.0625
Mercury	6798-05-11 13:11 G	4204108.93	4204109.05	4204109.17	0.1883	0.0030
Mercury	6806-11-19 13:26 G	4207222.98	4207223.06	4207223.15	0.1641	0.1366
Mercury	6807-10-01 21:07 G	4207539.27	4207539.38	4207539.49	0.1889	0.0747
Mercury	6817-02-21 04:48 G	4210969.63	4210969.70	4210969.76	0.1895	0.1539
Mercury	6818-03-18 07:26 G	4211359.68	4211359.81	4211359.94	0.1656	0.1015
Mercury	6819-01-27 20:52 G	4211675.31	4211675.37	4211675.44	0.1870	0.1538
Venus	6822-02-22 17:45 G	4212797.11	4212797.24	4212797.38	0.1740	0.1065
Earth	6827-06-18 02:52 G	4214738.53	4214738.62	4214738.71	0.1610	0.1412
Moon	6827-06-18 08:52 G	4214738.82	4214738.87	4214738.91	0.1610	0.1565
Mercury	6827-08-08 09:36 G	4214789.73	4214789.90	4214790.06	0.1651	0.0237
Mercury	6828-06-19 05:16 G	4215105.61	4215105.72	4215105.82	0.1877	0.0823
Mercury	6836-12-28 11:31 G	4218219.83	4218219.98	4218220.14	0.1646	0.0538
Mercury	6837-11-09 13:26 G	4218535.94	4218536.06	4218536.17	0.1883	0.0109
Mercury	6846-05-20 14:09 G	4221649.99	4221650.09	4221650.19	0.1641	0.1270
Mercury	6847-04-01 21:07 G	4221966.27	4221966.38	4221966.49	0.1889	0.0678
Venus	6854-02-21 23:45 G	4224484.32	4224484.49	4224484.65	0.1753	0.0510
Mercury	6856-08-22 04:48 G	4225396.63	4225396.70	4225396.78	0.1895	0.1460
Mercury	6857-09-16 08:09 G	4225786.72	4225786.84	4225786.96	0.1656	0.1116
Mercury	6858-07-28 20:52 G	4226102.32	4226102.37	4226102.43	0.1870	0.1605
Venus	6860-08-07 18:00 G	4226843.08	4226843.25	4226843.43	0.1785	0.0089
Mercury	6867-02-06 09:50 G	4229216.75	4229216.91	4229217.07	0.1651	0.0313
Mercury	6867-12-19 05:16 G	4229532.62	4229532.72	4229532.82	0.1877	0.0897
Earth	6874-06-12 07:26 G	4231899.69	4231899.81	4231899.92	0.1603	0.1266
Moon	6874-06-12 13:26 G	4231899.93	4231900.06	4231900.19	0.1603	0.1122
Mercury	6876-06-28 12:14 G	4232646.86	4232647.01	4232647.17	0.1646	0.0444

Mercury	6877-05-10 13:26 G	4232962.94	4232963.06	4232963.18	0.1883	0.0161
Mercury	6885-11-18 14:38 G	4236077.01	4236077.11	4236077.22	0.1641	0.1187
Mercury	6886-09-30 21:07 G	4236393.27	4236393.38	4236393.50	0.1889	0.0605
Venus	6887-12-21 03:07 G	4236839.51	4236839.63	4236839.74	0.1736	0.1295
Venus	6892-08-07 02:38 G	4238530.54	4238530.61	4238530.68	0.1771	0.1606
Mercury	6896-02-21 04:48 G	4239823.62	4239823.70	4239823.78	0.1895	0.1386
Mercury	6897-03-17 08:38 G	4240213.76	4240213.86	4240213.98	0.1656	0.1206
Mercury	6898-01-26 21:07 G	4240529.33	4240529.38	4240529.42	0.1870	0.1679
Mercury	6906-08-08 10:48 G	4243643.79	4243643.95	4243644.10	0.1651	0.0418
Mercury	6907-06-20 05:16 G	4243959.62	4243959.72	4243959.82	0.1876	0.0965
Mercury	6915-12-29 12:43 G	4247073.87	4247074.03	4247074.19	0.1646	0.0359
Mercury	6916-11-09 13:26 G	4247389.94	4247390.06	4247390.18	0.1883	0.0232
Venus	6919-12-21 08:09 G	4248526.67	4248526.84	4248527.01	0.1749	0.0256
Mercury	6925-05-20 15:07 G	4250504.02	4250504.13	4250504.25	0.1641	0.1104
Mercury	6926-04-01 21:21 G	4250820.28	4250820.39	4250820.51	0.1889	0.0521
Venus	6926-06-06 02:09 G	4250885.42	4250885.59	4250885.76	0.1789	0.0356
Mercury	6935-08-23 04:48 G	4254250.62	4254250.70	4254250.79	0.1895	0.1315
Mercury	6936-09-16 09:21 G	4254640.79	4254640.89	4254640.99	0.1656	0.1301
Mercury	6937-07-28 21:07 G	4254956.34	4254956.38	4254956.42	0.1870	0.1752
Mercury	6946-02-06 11:16 G	4258070.82	4258070.97	4258071.13	0.1651	0.0507
Mercury	6946-12-19 05:16 G	4258386.63	4258386.72	4258386.82	0.1876	0.1038
Earth	6953-06-15 08:09 G	4260756.66	4260756.84	4260757.03	0.1604	0.0177
Moon	6953-06-15 08:38 G	4260756.69	4260756.86	4260757.04	0.1604	0.0167 *
Venus	6953-10-18 11:45 G	4260881.91	4260881.99	4260882.07	0.1732	0.1533
Mercury	6955-06-29 13:26 G	4261500.90	4261501.06	4261501.22	0.1646	0.0264
Mercury	6956-05-10 13:40 G	4261816.95	4261817.07	4261817.18	0.1882	0.0316
Venus	6958-06-05 10:33 G	4262572.83	4262572.94	4262573.05	0.1775	0.1346
Mercury	6964-11-18 15:50 G	4264931.04	4264931.16	4264931.29	0.1641	0.1011
Mercury	6965-09-30 21:21 G	4265247.27	4265247.39	4265247.50	0.1889	0.0458
Mercury	6975-02-21 05:02 G	4268677.62	4268677.71	4268677.80	0.1895	0.1230

Mercury	6976-03-17 10:04 G	4269067.84	4269067.92	4269068.01	0.1656	0.1397
Mercury	6977-01-26 21:07 G	4269383.35	4269383.38	4269383.40	0.1870	0.1818
Mercury	6985-08-07 11:45 G	4272497.84	4272497.99	4272498.14	0.1651	0.0593
Venus	6985-10-17 16:04 G	4272569.00	4272569.17	4272569.35	0.1745	0.0048
Mercury	6986-06-19 05:31 G	4272813.64	4272813.73	4272813.82	0.1876	0.1119
Venus	6992-04-02 09:07 G	4274927.72	4274927.88	4274928.04	0.1793	0.0658
Mercury	6994-12-28 13:55 G	4275927.92	4275928.08	4275928.24	0.1646	0.0179
Mercury	6995-11-09 13:26 G	4276243.95	4276244.06	4276244.18	0.1882	0.0385

8TH MILLENNIUM CE

This is a list of transits visible from Mars in the 8th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	7004-05-20 16:33 G		4279358.06	4279358.19	4279358.32	0.1641	0.0921	
Mercury	7005-04-01 21:36 G		4279674.28	4279674.40	4279674.51	0.1889	0.0376	
Mercury	7014-08-23 05:02 G		4283104.62	4283104.71	4283104.81	0.1894	0.1160	
Mercury	7015-09-17 10:48 G		4283494.88	4283494.95	4283495.02	0.1656	0.1494	
Venus	7017-10-17 23:02 G		4284256.40	4284256.46	4284256.52	0.1758	0.1625	
Venus	7024-04-02 18:14 G		4286615.12	4286615.26	4286615.39	0.1780	0.1076	
Mercury	7025-02-06 12:28 G		4286924.88	4286925.02	4286925.17	0.1651	0.0692	
Mercury	7025-12-19 05:31 G		4287240.64	4287240.73	4287240.82	0.1876	0.1182	
Moon	7032-06-18 02:52 G		4289613.46	4289613.62	4289613.77	0.1606	0.0805	
Earth	7032-06-18 08:23 G		4289613.70	4289613.85	4289614.00	0.1606	0.0919	*
Mercury	7034-06-29 14:38 G		4290354.95	4290355.11	4290355.27	0.1646	0.0088	

Mercury	7035-05-11 13:40 G	4290670.96	4290671.07	4290671.18	0.1883	0.0457
Mercury	7043-11-19 17:02 G	4293785.07	4293785.21	4293785.34	0.1641	0.0839
Mercury	7044-09-30 21:36 G	4294101.28	4294101.40	4294101.52	0.1888	0.0296
Venus	7051-08-16 01:11 G	4296611.38	4296611.55	4296611.72	0.1741	0.0244
Mercury	7053-04-10 19:55 G	4297215.29	4297215.33	4297215.38	0.1637	0.1555
Mercury	7054-02-21 05:16 G	4297531.62	4297531.72	4297531.81	0.1894	0.1082
Mercury	7055-03-18 11:16 G	4297921.93	4297921.97	4297922.02	0.1656	0.1584
Venus	7058-01-29 16:48 G	4298970.05	4298970.20	4298970.34	0.1797	0.0950
Mercury	7063-07-14 12:43 G	4300962.02	4300962.03	4300962.04	0.1900	0.1883
Mercury	7064-08-07 13:11 G	4301351.91	4301352.05	4301352.19	0.1651	0.0787
Mercury	7065-06-19 05:31 G	4301667.65	4301667.73	4301667.82	0.1876	0.1259
Moon	7070-12-18 10:04 G	4303675.72	4303675.92	4303676.13	0.1931	0.0743
Earth	7070-12-18 16:19 G	4303676.01	4303676.18	4303676.36	0.1931	0.0958 *
Mercury	7073-12-28 15:07 G	4304781.97	4304782.13	4304782.30	0.1646	0.0046
Mercury	7074-11-09 13:40 G	4305097.96	4305098.07	4305098.18	0.1882	0.0530
Mercury	7083-05-20 17:45 G	4308212.10	4308212.24	4308212.38	0.1641	0.0743
Venus	7083-08-15 07:11 G	4308298.69	4308298.80	4308298.91	0.1754	0.1359
Mercury	7084-03-31 21:36 G	4308528.28	4308528.40	4308528.52	0.1889	0.0227
Venus	7090-01-29 01:55 G	4310657.42	4310657.58	4310657.73	0.1784	0.0802
Mercury	7092-10-09 20:23 G	4311642.28	4311642.35	4311642.42	0.1637	0.1476
Mercury	7093-08-22 05:16 G	4311958.62	4311958.72	4311958.82	0.1895	0.1003
Mercury	7103-01-13 12:43 G	4315389.00	4315389.03	4315389.07	0.1900	0.1807
Mercury	7104-02-07 13:40 G	4315778.93	4315779.07	4315779.21	0.1651	0.0871
Mercury	7104-12-19 05:45 G	4316094.66	4316094.74	4316094.82	0.1876	0.1336
Mercury	7113-06-29 15:50 G	4319209.00	4319209.16	4319209.32	0.1646	0.0103
Mercury	7114-05-11 13:55 G	4319524.96	4319525.08	4319525.19	0.1882	0.0609
Venus	7117-06-13 09:36 G	4320653.73	4320653.90	4320654.07	0.1737	0.0498
Mercury	7122-11-19 18:14 G	4322639.11	4322639.26	4322639.41	0.1641	0.0657
Mercury	7123-10-01 21:36 G	4322955.29	4322955.40	4322955.52	0.1888	0.0164
Venus	7123-11-27 23:45 G	4323012.37	4323012.49	4323012.62	0.1802	0.1256

Mercury	7132-04-10 21:07 G	4326069.29	4326069.38	4326069.46	0.1637	0.1384
Mercury	7133-02-21 05:31 G	4326385.62	4326385.73	4326385.83	0.1894	0.0930
Mercury	7142-07-14 12:43 G	4329815.99	4329816.03	4329816.08	0.1900	0.1733
Mercury	7143-08-08 14:23 G	4330205.97	4330206.10	4330206.23	0.1651	0.0976
Mercury	7144-06-19 05:45 G	4330521.66	4330521.74	4330521.81	0.1876	0.1404
Venus	7149-06-12 15:36 G	4332341.01	4332341.15	4332341.28	0.1750	0.1098
Mercury	7152-12-28 16:19 G	4333636.02	4333636.18	4333636.34	0.1646	0.0188
Mercury	7153-11-09 13:55 G	4333951.97	4333952.08	4333952.19	0.1882	0.0679
Venus	7155-11-27 09:36 G	4334699.73	4334699.90	4334700.06	0.1788	0.0523
Earth	7158-06-16 14:52 G	4335631.95	4335632.12	4335632.30	0.1601	0.0631
Moon	7158-06-16 15:50 G	4335631.97	4335632.16	4335632.35	0.1601	0.0568 *
Mercury	7162-05-20 18:43 G	4337066.13	4337066.28	4337066.43	0.1642	0.0572
Mercury	7163-04-01 21:50 G	4337382.29	4337382.41	4337382.53	0.1888	0.0076
Mercury	7171-10-10 21:36 G	4340496.31	4340496.40	4340496.50	0.1637	0.1295
Mercury	7172-08-22 05:31 G	4340812.62	4340812.73	4340812.83	0.1894	0.0854
Mercury	7182-01-12 12:57 G	4344242.98	4344243.04	4344243.10	0.1900	0.1652
Mercury	7183-02-06 15:07 G	4344633.01	4344633.13	4344633.25	0.1651	0.1067
Venus	7183-04-10 18:43 G	4344696.12	4344696.28	4344696.43	0.1733	0.0730
Mercury	7183-12-19 05:45 G	4344948.67	4344948.74	4344948.81	0.1876	0.1477
Venus	7189-09-24 06:43 G	4347054.70	4347054.78	4347054.86	0.1806	0.1569
Mercury	7192-06-28 17:02 G	4348063.05	4348063.21	4348063.37	0.1646	0.0283
Mercury	7193-05-10 13:55 G	4348378.97	4348379.08	4348379.19	0.1882	0.0754
Mercury	7201-11-18 19:26 G	4351493.16	4351493.31	4351493.46	0.1642	0.0477
Mercury	7202-09-30 21:50 G	4351809.29	4351809.41	4351809.53	0.1888	0.0025
Mercury	7211-04-10 22:04 G	4354923.32	4354923.42	4354923.53	0.1637	0.1214
Mercury	7212-02-21 05:45 G	4355239.63	4355239.74	4355239.85	0.1894	0.0770
Venus	7215-04-09 23:45 G	4356383.34	4356383.49	4356383.64	0.1746	0.0839
Mercury	7221-07-13 13:11 G	4358669.98	4358670.05	4358670.11	0.1900	0.1573
Venus	7221-09-23 17:02 G	4358742.04	4358742.21	4358742.38	0.1792	0.0241
Mercury	7222-08-07 15:36 G	4359060.03	4359060.15	4359060.26	0.1652	0.1155

Mercury	7223-06-19 06:00 G	4359375.68	4359375.75	4359375.81	0.1875	0.1559
Mercury	7231-12-28 17:45 G	4362490.08	4362490.24	4362490.39	0.1647	0.0376
Mercury	7232-11-08 13:55 G	4362805.98	4362806.08	4362806.19	0.1882	0.0824
Earth	7237-06-18 15:36 G	4364488.97	4364489.15	4364489.33	0.1602	0.0458
Moon	7237-06-18 22:04 G	4364489.24	4364489.42	4364489.60	0.1602	0.0510 *
Mercury	7241-05-19 20:09 G	4365920.18	4365920.34	4365920.49	0.1642	0.0386
Mercury	7242-03-31 22:04 G	4366236.30	4366236.42	4366236.53	0.1888	0.0096
Venus	7249-02-05 03:50 G	4368738.51	4368738.66	4368738.80	0.1730	0.0963
Mercury	7250-10-09 22:48 G	4369350.33	4369350.45	4369350.57	0.1637	0.1121
Mercury	7251-08-22 05:45 G	4369666.63	4369666.74	4369666.85	0.1894	0.0702
Mercury	7261-01-11 12:57 G	4373096.97	4373097.04	4373097.12	0.1900	0.1504
Mercury	7262-02-05 16:19 G	4373487.08	4373487.18	4373487.28	0.1652	0.1255
Mercury	7262-12-18 05:45 G	4373802.69	4373802.74	4373802.80	0.1875	0.1619
Mercury	7271-06-28 18:14 G	4376917.11	4376917.26	4376917.42	0.1647	0.0465
Mercury	7272-05-09 14:09 G	4377232.98	4377233.09	4377233.19	0.1882	0.0906
Mercury	7280-11-17 20:38 G	4380347.20	4380347.36	4380347.51	0.1642	0.0304
Venus	7281-02-04 08:23 G	4380425.69	4380425.85	4380426.02	0.1743	0.0584
Mercury	7281-09-29 22:04 G	4380663.30	4380663.42	4380663.54	0.1888	0.0157
Venus	7287-07-22 00:28 G	4382784.35	4382784.52	4382784.69	0.1796	0.0057
Mercury	7290-04-09 23:16 G	4383777.35	4383777.47	4383777.60	0.1637	0.1034
Mercury	7291-02-20 05:45 G	4384093.63	4384093.74	4384093.85	0.1894	0.0623
Mercury	7300-07-13 13:11 G	4387523.98	4387524.05	4387524.13	0.1900	0.1419
Mercury	7301-08-07 17:02 G	4387914.12	4387914.21	4387914.30	0.1652	0.1353
Mercury	7302-06-19 06:00 G	4388229.70	4388229.75	4388229.79	0.1875	0.1699
Mercury	7310-12-28 18:57 G	4391344.14	4391344.29	4391344.44	0.1647	0.0559
Mercury	7311-11-09 14:09 G	4391659.99	4391660.09	4391660.19	0.1882	0.0975
Venus	7314-12-04 12:57 G	4392780.92	4392781.04	4392781.17	0.1726	0.1188
Earth	7316-06-21 15:50 G	4393346.12	4393346.16	4393346.21	0.1604	0.1549
Moon	7316-06-21 19:55 G	4393346.27	4393346.33	4393346.40	0.1604	0.1487
Venus	7319-07-22 10:19 G	4394471.88	4394471.93	4394471.98	0.1782	0.1701

Mercury	7320-05-19 21:21 G	4394774.23	4394774.39	4394774.55	0.1642	0.0209
Mercury	7321-03-31 22:04 G	4395090.30	4395090.42	4395090.54	0.1888	0.0226
Mercury	7329-10-09 23:45 G	4398204.36	4398204.49	4398204.62	0.1637	0.0952
Mercury	7330-08-22 06:00 G	4398520.63	4398520.75	4398520.86	0.1894	0.0543
Mercury	7340-01-12 13:26 G	4401950.97	4401951.06	4401951.14	0.1899	0.1343
Mercury	7341-02-05 17:31 G	4402341.15	4402341.23	4402341.31	0.1652	0.1438
Mercury	7341-12-18 06:00 G	4402656.72	4402656.75	4402656.79	0.1875	0.1775
Venus	7346-12-03 17:02 G	4404468.04	4404468.21	4404468.38	0.1739	0.0339
Mercury	7350-06-28 19:40 G	4405771.17	4405771.32	4405771.46	0.1647	0.0656
Mercury	7351-05-10 14:09 G	4406086.99	4406087.09	4406087.19	0.1881	0.1049
Venus	7353-05-19 07:55 G	4406826.66	4406826.83	4406827.01	0.1800	0.0350
Moon	7354-12-19 14:38 G	4407406.02	4407406.11	4407406.21	0.1935	0.1643
Earth	7354-12-19 15:21 G	4407406.06	4407406.14	4407406.21	0.1935	0.1786 *
Mercury	7359-11-18 21:50 G	4409201.25	4409201.41	4409201.57	0.1642	0.0117
Mercury	7360-09-29 22:04 G	4409517.31	4409517.42	4409517.54	0.1888	0.0311
Moon	7363-06-16 21:21 G	4410507.27	4410507.39	4410507.51	0.1598	0.1171
Earth	7363-06-16 22:48 G	4410507.31	4410507.45	4410507.59	0.1598	0.1064 *
Mercury	7369-04-10 00:28 G	4412631.39	4412631.52	4412631.66	0.1637	0.0857
Mercury	7370-02-20 06:00 G	4412947.63	4412947.75	4412947.86	0.1894	0.0472
Mercury	7378-08-31 03:21 G	4416061.61	4416061.64	4416061.68	0.1633	0.1575
Mercury	7379-07-13 13:26 G	4416377.97	4416378.06	4416378.15	0.1900	0.1266
Mercury	7380-08-06 18:14 G	4416768.21	4416768.26	4416768.32	0.1652	0.1543
Venus	7380-09-30 22:19 G	4416823.33	4416823.43	4416823.52	0.1723	0.1415
Mercury	7381-06-18 06:00 G	4417083.73	4417083.75	4417083.77	0.1875	0.1841
Venus	7385-05-18 17:45 G	4418514.14	4418514.24	4418514.34	0.1786	0.1424
Mercury	7389-12-27 19:55 G	4420198.19	4420198.33	4420198.48	0.1647	0.0740
Mercury	7390-11-08 14:09 G	4420514.00	4420514.09	4420514.19	0.1882	0.1124
Mercury	7399-05-19 22:19 G	4423628.27	4423628.43	4423628.59	0.1642	0.0036
Mercury	7400-03-31 22:19 G	4423944.32	4423944.43	4423944.55	0.1887	0.0385
Mercury	7408-10-10 01:11 G	4427058.41	4427058.55	4427058.69	0.1638	0.0767

Mercury	7409-08-22 06:00 G	4427374.63	4427374.75	4427374.87	0.1894	0.0394
Venus	7412-10-01 01:40 G	4428510.40	4428510.57	4428510.74	0.1735	0.0087
Mercury	7418-03-02 04:04 G	4430488.61	4430488.67	4430488.73	0.1633	0.1489
Mercury	7419-01-12 13:26 G	4430804.97	4430805.06	4430805.16	0.1899	0.1190
Venus	7419-03-17 14:38 G	4430868.95	4430869.11	4430869.27	0.1804	0.0666
Mercury	7420-02-06 18:57 G	4431195.27	4431195.29	4431195.31	0.1652	0.1635
Mercury	7429-06-28 20:52 G	4434625.23	4434625.37	4434625.51	0.1647	0.0840
Mercury	7430-05-10 14:23 G	4434941.01	4434941.10	4434941.19	0.1881	0.1200
Moon	7433-12-24 03:21 G	4436264.49	4436264.64	4436264.80	0.1932	0.1307
Earth	7433-12-24 13:11 G	4436264.98	4436265.05	4436265.14	0.1932	0.1772
Mercury	7438-11-18 23:02 G	4438055.30	4438055.46	4438055.62	0.1642	0.0067
Mercury	7439-09-30 22:19 G	4438371.31	4438371.43	4438371.54	0.1888	0.0452
Moon	7442-06-19 17:02 G	4439364.02	4439364.21	4439364.39	0.1599	0.0067
Earth	7442-06-19 23:02 G	4439364.28	4439364.46	4439364.65	0.1599	0.0030 *
Venus	7444-09-30 07:11 G	4440197.76	4440197.80	4440197.85	0.1748	0.1689
Venus	7446-07-30 07:40 G	4440865.77	4440865.82	4440865.87	0.1719	0.1638
Mercury	7448-04-10 01:26 G	4441485.42	4441485.56	4441485.71	0.1637	0.0688
Mercury	7449-02-20 06:14 G	4441801.64	4441801.76	4441801.88	0.1894	0.0311
Venus	7451-03-17 00:57 G	4442556.41	4442556.54	4442556.68	0.1791	0.1139
Mercury	7457-08-31 04:33 G	4444915.61	4444915.69	4444915.77	0.1633	0.1402
Mercury	7458-07-13 13:40 G	4445231.97	4445232.07	4445232.16	0.1899	0.1110
Mercury	7468-12-27 21:21 G	4449052.26	4449052.39	4449052.53	0.1647	0.0934
Mercury	7469-11-08 14:23 G	4449368.01	4449368.10	4449368.18	0.1881	0.1270
Mercury	7478-05-19 23:45 G	4452482.32	4452482.49	4452482.65	0.1642	0.0164
Venus	7478-07-29 10:48 G	4452552.78	4452552.95	4452553.13	0.1731	0.0147
Mercury	7479-03-31 22:33 G	4452798.32	4452798.44	4452798.55	0.1887	0.0537
Venus	7485-01-11 21:50 G	4454911.27	4454911.41	4454911.56	0.1808	0.0971
Mercury	7487-10-10 02:09 G	4455912.44	4455912.59	4455912.74	0.1638	0.0592
Mercury	7488-08-21 06:14 G	4456228.64	4456228.76	4456228.87	0.1893	0.0251
Mercury	7497-03-01 05:02 G	4459342.62	4459342.71	4459342.80	0.1633	0.1318

Mercury	7498-01-11 13:40 G	4459658.97	4459659.07	4459659.17	0.1900	0.1036
Mercury	7507-06-04 21:07 G	4463089.35	4463089.38	4463089.41	0.1905	0.1843
Mercury	7508-06-28 21:50 G	4463479.29	4463479.41	4463479.54	0.1647	0.1023
Mercury	7509-05-10 14:23 G	4463795.02	4463795.10	4463795.18	0.1881	0.1351
Venus	7510-07-29 15:36 G	4464240.05	4464240.15	4464240.25	0.1744	0.1429
Venus	7517-01-12 08:23 G	4466598.69	4466598.85	4466599.00	0.1795	0.0850
Mercury	7517-11-19 00:14 G	4466909.35	4466909.51	4466909.67	0.1642	0.0247
Mercury	7518-09-30 22:33 G	4467225.33	4467225.44	4467225.55	0.1887	0.0608
Moon	7521-06-22 19:40 G	4468221.18	4468221.32	4468221.46	0.1600	0.1129
Earth	7521-06-22 23:16 G	4468221.33	4468221.47	4468221.60	0.1600	0.1089 *
Mercury	7527-04-11 02:52 G	4470339.46	4470339.62	4470339.77	0.1638	0.0504
Mercury	7528-02-21 06:14 G	4470655.64	4470655.76	4470655.88	0.1894	0.0165
Mercury	7536-08-31 05:45 G	4473769.64	4473769.74	4473769.84	0.1633	0.1226
Mercury	7537-07-13 13:55 G	4474085.97	4474086.08	4474086.18	0.1899	0.0955
Venus	7544-05-26 19:26 G	4476595.14	4476595.31	4476595.48	0.1727	0.0394
Mercury	7546-12-03 21:07 G	4477516.34	4477516.38	4477516.42	0.1905	0.1779
Mercury	7547-12-28 22:33 G	4477906.32	4477906.44	4477906.56	0.1647	0.1118
Mercury	7548-11-08 14:23 G	4478222.03	4478222.10	4478222.18	0.1881	0.1417
Venus	7550-11-10 04:33 G	4478953.57	4478953.69	4478953.81	0.1813	0.1295
Mercury	7557-05-20 00:43 G	4481336.38	4481336.53	4481336.69	0.1642	0.0342
Mercury	7558-03-31 22:33 G	4481652.33	4481652.44	4481652.55	0.1888	0.0679
Mercury	7566-10-10 03:21 G	4484766.48	4484766.64	4484766.79	0.1638	0.0420
Mercury	7567-08-22 06:28 G	4485082.65	4485082.77	4485082.89	0.1893	0.0093
Earth	7568-06-17 07:11 G	4485382.74	4485382.80	4485382.87	0.1596	0.1487
Moon	7568-06-17 08:38 G	4485382.76	4485382.86	4485382.96	0.1596	0.1365 *
Mercury	7576-03-01 06:14 G	4488196.65	4488196.76	4488196.87	0.1633	0.1142
Venus	7576-05-26 00:14 G	4488282.38	4488282.51	4488282.64	0.1740	0.1175
Mercury	7577-01-11 13:55 G	4488512.97	4488513.08	4488513.18	0.1899	0.0880
Venus	7582-11-09 15:36 G	4490640.98	4490641.15	4490641.31	0.1799	0.0555
Mercury	7586-06-03 21:21 G	4491943.33	4491943.39	4491943.44	0.1905	0.1693

Mercury	7587-06-28 23:16 G	4492333.36	4492333.47	4492333.58	0.1648	0.1215
Mercury	7588-05-09 14:23 G	4492649.03	4492649.10	4492649.17	0.1881	0.1493
Mercury	7596-11-18 01:26 G	4495763.40	4495763.56	4495763.72	0.1643	0.0432
Mercury	7597-09-29 22:33 G	4496079.33	4496079.44	4496079.55	0.1887	0.0756
Mercury	7606-04-10 03:50 G	4499193.51	4499193.66	4499193.82	0.1638	0.0326
Mercury	7607-02-20 06:28 G	4499509.65	4499509.77	4499509.88	0.1893	0.0069
Venus	7610-03-24 04:48 G	4500637.54	4500637.70	4500637.86	0.1724	0.0619
Mercury	7615-08-31 06:43 G	4502623.66	4502623.78	4502623.90	0.1633	0.1057
Mercury	7616-07-12 13:55 G	4502939.97	4502940.08	4502940.19	0.1899	0.0802
Venus	7616-09-06 11:02 G	4502995.88	4502995.96	4502996.03	0.1817	0.1626
Mercury	7625-12-02 21:21 G	4506370.33	4506370.39	4506370.45	0.1904	0.1613
Mercury	7626-12-27 23:45 G	4506760.39	4506760.49	4506760.59	0.1647	0.1301
Mercury	7627-11-08 14:38 G	4507076.05	4507076.11	4507076.17	0.1881	0.1568
Mercury	7636-05-19 01:55 G	4510190.43	4510190.58	4510190.73	0.1643	0.0522
Mercury	7637-03-30 22:48 G	4510506.34	4510506.45	4510506.55	0.1887	0.0835
Venus	7642-03-23 08:52 G	4512324.72	4512324.87	4512325.01	0.1736	0.0923
Mercury	7645-10-09 04:33 G	4513620.53	4513620.69	4513620.85	0.1638	0.0233
Mercury	7646-08-21 06:28 G	4513936.65	4513936.77	4513936.89	0.1893	0.0065
Earth	7647-06-20 06:43 G	4514239.60	4514239.78	4514239.97	0.1597	0.0429
Moon	7647-06-20 12:57 G	4514239.86	4514240.04	4514240.22	0.1597	0.0442 *
Venus	7648-09-05 22:33 G	4514683.27	4514683.44	4514683.61	0.1803	0.0253
Mercury	7655-03-01 07:26 G	4517050.68	4517050.81	4517050.93	0.1633	0.0969
Mercury	7656-01-11 13:55 G	4517366.98	4517367.08	4517367.19	0.1899	0.0730
Mercury	7665-06-02 21:21 G	4520797.32	4520797.39	4520797.46	0.1905	0.1541
Mercury	7666-06-28 00:28 G	4521187.44	4521187.52	4521187.60	0.1648	0.1403
Mercury	7667-05-09 14:38 G	4521503.05	4521503.11	4521503.16	0.1881	0.1640
Mercury	7675-11-18 02:38 G	4524617.46	4524617.61	4524617.76	0.1643	0.0615
Venus	7676-01-19 14:09 G	4524679.94	4524680.09	4524680.24	0.1720	0.0849
Mercury	7676-09-28 22:33 G	4524933.34	4524933.44	4524933.55	0.1887	0.0903
Mercury	7685-04-09 04:48 G	4528047.54	4528047.70	4528047.86	0.1638	0.0159

Mercury	7686-02-19 06:28 G	4528363.66	4528363.77	4528363.89	0.1893	0.0163
Mercury	7694-08-30 07:55 G	4531477.70	4531477.83	4531477.97	0.1634	0.0878
Mercury	7695-07-12 14:09 G	4531793.98	4531794.09	4531794.20	0.1899	0.0648
Mercury	7704-01-21 11:02 G	4534907.93	4534907.96	4534908.00	0.1629	0.1589
Mercury	7704-12-02 21:36 G	4535224.32	4535224.40	4535224.47	0.1904	0.1462
Mercury	7705-12-28 00:57 G	4535614.48	4535614.54	4535614.61	0.1648	0.1497
Mercury	7706-11-08 14:38 G	4535930.06	4535930.11	4535930.15	0.1881	0.1710
Venus	7708-01-19 17:45 G	4536367.08	4536367.24	4536367.40	0.1733	0.0673
Venus	7714-07-05 05:31 G	4538725.56	4538725.73	4538725.90	0.1807	0.0062
Mercury	7715-05-20 03:07 G	4539044.49	4539044.63	4539044.78	0.1643	0.0707
Mercury	7716-03-30 22:48 G	4539360.35	4539360.45	4539360.55	0.1887	0.0981
Earth	7717-12-25 09:36 G	4539994.71	4539994.90	4539995.08	0.1936	0.0875
Moon	7717-12-25 16:04 G	4539995.01	4539995.17	4539995.33	0.1935	0.1078 *
Mercury	7724-10-09 05:45 G	4542474.57	4542474.74	4542474.90	0.1638	0.0070
Mercury	7725-08-21 06:28 G	4542790.66	4542790.77	4542790.89	0.1893	0.0217
Earth	7726-06-23 06:43 G	4543096.61	4543096.78	4543096.95	0.1598	0.0647
Moon	7726-06-23 08:52 G	4543096.71	4543096.87	4543097.03	0.1598	0.0663 *
Mercury	7734-03-01 08:23 G	4545904.71	4545904.85	4545904.99	0.1634	0.0796
Mercury	7735-01-11 14:09 G	4546220.98	4546221.09	4546221.20	0.1899	0.0573
Venus	7741-11-16 23:31 G	4548722.35	4548722.48	4548722.62	0.1717	0.1071
Mercury	7743-07-22 11:31 G	4549334.93	4549334.98	4549335.04	0.1630	0.1507
Mercury	7744-06-02 21:36 G	4549651.32	4549651.40	4549651.49	0.1904	0.1378
Mercury	7745-06-28 01:40 G	4550041.52	4550041.57	4550041.61	0.1648	0.1585
Mercury	7746-05-09 14:38 G	4550357.08	4550357.11	4550357.15	0.1881	0.1793
Venus	7746-07-04 16:33 G	4550413.16	4550413.19	4550413.22	0.1793	0.1765
Mercury	7754-11-18 03:36 G	4553471.51	4553471.65	4553471.79	0.1643	0.0797
Mercury	7755-09-29 22:48 G	4553787.36	4553787.45	4553787.55	0.1887	0.1054
Mercury	7764-04-09 06:14 G	4556901.60	4556901.76	4556901.92	0.1638	0.0037
Mercury	7765-02-19 06:43 G	4557217.66	4557217.78	4557217.89	0.1893	0.0296
Mercury	7773-08-30 09:07 G	4560331.73	4560331.88	4560332.02	0.1634	0.0703

Venus	7773-11-16 02:38 G	4560409.44	4560409.61	4560409.78	0.1729	0.0432
Mercury	7774-07-12 14:23 G	4560647.98	4560648.10	4560648.21	0.1899	0.0497
Venus	7780-05-01 12:28 G	4562767.85	4562768.02	4562768.19	0.1811	0.0372
Mercury	7783-01-20 12:14 G	4563761.93	4563762.01	4563762.08	0.1629	0.1419
Mercury	7783-12-02 21:36 G	4564078.31	4564078.40	4564078.48	0.1904	0.1312
Mercury	7785-11-07 14:38 G	4564784.10	4564784.11	4564784.13	0.1880	0.1856
Mercury	7794-05-19 04:19 G	4567898.55	4567898.68	4567898.82	0.1643	0.0891
Mercury	7795-03-30 22:48 G	4568214.36	4568214.45	4568214.55	0.1887	0.1128
Mercury	7803-10-10 06:43 G	4571328.62	4571328.78	4571328.94	0.1638	0.0122
Mercury	7804-08-21 06:43 G	4571644.67	4571644.78	4571644.90	0.1893	0.0376
Venus	7807-09-15 09:07 G	4572764.77	4572764.88	4572764.99	0.1713	0.1294
Venus	7812-05-01 23:16 G	4574455.38	4574455.47	4574455.57	0.1797	0.1470
Mercury	7813-03-01 09:36 G	4574758.75	4574758.90	4574759.05	0.1634	0.0617
Mercury	7814-01-11 14:23 G	4575074.98	4575075.10	4575075.21	0.1899	0.0427
Mercury	7822-07-22 12:43 G	4578188.94	4578189.03	4578189.12	0.1630	0.1332
Mercury	7823-06-03 21:50 G	4578505.32	4578505.41	4578505.50	0.1904	0.1224
Mercury	7833-11-18 05:02 G	4582325.58	4582325.71	4582325.83	0.1643	0.0985
Mercury	7834-09-29 23:02 G	4582641.37	4582641.46	4582641.55	0.1887	0.1204
Venus	7839-09-14 11:31 G	4584451.80	4584451.98	4584452.15	0.1725	0.0189
Mercury	7843-04-10 07:11 G	4585755.64	4585755.80	4585755.96	0.1638	0.0218
Mercury	7844-02-20 06:43 G	4586071.67	4586071.78	4586071.89	0.1893	0.0438
Venus	7846-02-27 18:28 G	4586810.11	4586810.27	4586810.43	0.1815	0.0715
Moon	7852-06-20 08:23 G	4589114.69	4589114.85	4589115.01	0.1595	0.0821
Earth	7852-06-20 14:52 G	4589114.96	4589115.12	4589115.28	0.1595	0.0856 *
Mercury	7852-08-30 10:04 G	4589185.77	4589185.92	4589186.07	0.1634	0.0532
Mercury	7853-07-12 14:23 G	4589501.98	4589502.10	4589502.22	0.1899	0.0341
Mercury	7862-01-20 13:11 G	4592615.95	4592616.05	4592616.15	0.1630	0.1250
Mercury	7862-12-02 21:50 G	4592932.32	4592932.41	4592932.51	0.1904	0.1148
Mercury	7873-05-19 05:31 G	4596752.61	4596752.73	4596752.85	0.1643	0.1076
Venus	7873-07-12 18:43 G	4596807.20	4596807.28	4596807.35	0.1710	0.1514

Mercury	7874-03-30 23:02 G	4597068.37	4597068.46	4597068.54	0.1886	0.1279
Venus	7878-02-27 06:14 G	4598497.63	4598497.76	4598497.89	0.1802	0.1163
Mercury	7882-10-09 07:55 G	4600182.67	4600182.83	4600182.99	0.1638	0.0306
Mercury	7883-08-21 06:43 G	4600498.67	4600498.78	4600498.90	0.1893	0.0519
Mercury	7892-02-29 10:33 G	4603612.79	4603612.94	4603613.10	0.1634	0.0442
Mercury	7893-01-10 14:23 G	4603928.99	4603929.10	4603929.22	0.1898	0.0271
Mercury	7901-07-22 13:40 G	4607042.96	4607043.07	4607043.19	0.1630	0.1160
Mercury	7902-06-03 21:50 G	4607359.31	4607359.41	4607359.51	0.1904	0.1075
Venus	7905-07-12 20:52 G	4608494.19	4608494.37	4608494.54	0.1721	0.0056
Mercury	7911-10-25 05:02 G	4610789.71	4610789.71	4610789.72	0.1909	0.1903
Venus	7911-12-27 01:26 G	4610852.42	4610852.56	4610852.70	0.1820	0.1040
Mercury	7912-11-18 06:00 G	4611179.64	4611179.75	4611179.86	0.1643	0.1167
Mercury	7913-09-29 23:02 G	4611495.38	4611495.46	4611495.54	0.1887	0.1348
Mercury	7922-04-10 08:23 G	4614609.69	4614609.85	4614610.00	0.1638	0.0391
Mercury	7923-02-20 06:57 G	4614925.68	4614925.79	4614925.90	0.1893	0.0597
Moon	7931-06-24 11:45 G	4617971.79	4617971.99	4617972.18	0.1596	0.0190
Earth	7931-06-24 14:23 G	4617971.92	4617972.10	4617972.29	0.1596	0.0207 *
Mercury	7931-08-31 11:16 G	4618039.81	4618039.97	4618040.13	0.1634	0.0349
Mercury	7932-07-12 14:38 G	4618355.99	4618356.11	4618356.22	0.1898	0.0200
Venus	7937-07-12 00:14 G	4620181.43	4620181.51	4620181.60	0.1734	0.1502
Mercury	7941-01-20 14:09 G	4621469.98	4621470.09	4621470.21	0.1630	0.1076
Mercury	7941-12-02 22:04 G	4621786.32	4621786.42	4621786.52	0.1904	0.0996
Venus	7943-12-26 12:57 G	4622539.89	4622540.04	4622540.20	0.1806	0.0856
Mercury	7951-04-25 05:02 G	4625216.68	4625216.71	4625216.74	0.1909	0.1830
Mercury	7952-05-19 06:43 G	4625606.68	4625606.78	4625606.88	0.1643	0.1262
Mercury	7953-03-30 23:02 G	4625922.39	4625922.46	4625922.54	0.1886	0.1427
Mercury	7961-10-09 09:07 G	4629036.72	4629036.88	4629037.03	0.1639	0.0490
Mercury	7962-08-21 06:57 G	4629352.68	4629352.79	4629352.90	0.1893	0.0667
Mercury	7971-03-01 11:45 G	4632466.83	4632466.99	4632467.14	0.1634	0.0272
Venus	7971-05-10 05:31 G	4632536.56	4632536.73	4632536.90	0.1717	0.0288

Mercury	7972-01-11 14:38 G	4632782.99	4632783.11	4632783.23	0.1899	0.0114
Venus	7977-10-23 07:11 G	4634894.69	4634894.80	4634894.92	0.1824	0.1388
Mercury	7980-07-21 14:38 G	4635896.99	4635897.11	4635897.24	0.1630	0.0992
Mercury	7981-06-02 22:04 G	4636213.32	4636213.42	4636213.53	0.1904	0.0914
Mercury	7990-10-24 05:16 G	4639643.67	4639643.72	4639643.76	0.1909	0.1752
Mercury	7991-11-18 07:11 G	4640033.71	4640033.80	4640033.89	0.1644	0.1355
Mercury	7992-09-28 23:02 G	4640349.39	4640349.46	4640349.53	0.1886	0.1498

9TH MILLENNIUM CE

This is a list of transits visible from Mars in the 9th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	8001-04-09 09:36 G		4643463.75	4643463.90	4643464.05	0.1639	0.0577	
Earth	8001-12-26 03:50 G		4643724.45	4643724.66	4643724.86	0.1939	0.0106	
Moon	8001-12-26 06:00 G		4643724.52	4643724.75	4643724.98	0.1939	0.0175	*
Mercury	8002-02-19 06:57 G		4643779.68	4643779.79	4643779.90	0.1893	0.0743	
Venus	8003-05-09 09:07 G		4644223.76	4644223.88	4644224.00	0.1730	0.1254	
Venus	8009-10-22 19:40 G		4646582.15	4646582.32	4646582.48	0.1810	0.0538	
Earth	8010-06-26 13:55 G		4646828.97	4646829.08	4646829.19	0.1596	0.1267	
Moon	8010-06-26 18:28 G		4646829.15	4646829.27	4646829.39	0.1596	0.1259	*
Mercury	8010-08-30 12:14 G		4646893.85	4646894.01	4646894.17	0.1634	0.0176	
Mercury	8011-07-12 14:38 G		4647209.99	4647210.11	4647210.23	0.1898	0.0043	
Mercury	8020-01-20 15:21 G		4650324.01	4650324.14	4650324.27	0.1630	0.0903	
Mercury	8020-12-01 22:04 G		4650640.31	4650640.42	4650640.53	0.1904	0.0846	

Mercury	8029-06-11 18:43 G	4653754.26	4653754.28	4653754.30	0.1626	0.1608
Mercury	8030-04-24 05:31 G	4654070.67	4654070.73	4654070.78	0.1909	0.1664
Mercury	8031-05-19 07:40 G	4654460.75	4654460.82	4654460.90	0.1643	0.1449
Mercury	8032-03-29 23:02 G	4654776.40	4654776.46	4654776.53	0.1887	0.1574
Venus	8037-03-06 15:21 G	4656578.97	4656579.14	4656579.30	0.1714	0.0507
Mercury	8040-10-08 10:04 G	4657890.77	4657890.92	4657891.07	0.1639	0.0664
Mercury	8041-08-20 07:11 G	4658206.69	4658206.80	4658206.90	0.1892	0.0826
Venus	8043-08-20 13:26 G	4658937.01	4658937.06	4658937.11	0.1828	0.1739
Mercury	8050-02-28 12:43 G	4661320.87	4661321.03	4661321.19	0.1634	0.0096
Mercury	8051-01-10 14:38 G	4661636.99	4661637.11	4661637.23	0.1898	0.0044
Earth	8057-06-20 23:16 G	4663990.36	4663990.47	4663990.59	0.1593	0.1272
Moon	8057-06-21 05:31 G	4663990.63	4663990.73	4663990.84	0.1593	0.1326
Mercury	8059-07-21 15:50 G	4664751.02	4664751.16	4664751.30	0.1630	0.0813
Mercury	8060-06-01 22:19 G	4665067.32	4665067.43	4665067.54	0.1904	0.0760
Mercury	8068-12-10 19:11 G	4668181.25	4668181.30	4668181.35	0.1626	0.1519
Venus	8069-03-05 18:14 G	4668266.12	4668266.26	4668266.40	0.1726	0.1010
Mercury	8069-10-23 05:16 G	4668497.66	4668497.72	4668497.79	0.1909	0.1597
Mercury	8070-11-17 08:23 G	4668887.80	4668887.85	4668887.90	0.1644	0.1542
Mercury	8071-09-28 23:16 G	4669203.41	4669203.47	4669203.52	0.1886	0.1647
Venus	8075-08-20 02:23 G	4670624.42	4670624.60	4670624.77	0.1814	0.0219
Mercury	8080-04-08 10:33 G	4672317.80	4672317.94	4672318.09	0.1639	0.0760
Mercury	8081-02-18 06:57 G	4672633.69	4672633.79	4672633.89	0.1892	0.0888
Mercury	8089-08-29 13:26 G	4675747.89	4675748.06	4675748.22	0.1634	0.0045
Mercury	8090-07-11 14:52 G	4676064.00	4676064.12	4676064.24	0.1898	0.0122
Mercury	8099-01-19 16:19 G	4679178.04	4679178.18	4679178.32	0.1630	0.0730
Mercury	8099-12-01 22:19 G	4679494.32	4679494.43	4679494.54	0.1904	0.0684
Venus	8103-01-03 00:43 G	4680621.37	4680621.53	4680621.69	0.1710	0.0732
Mercury	8108-06-11 19:40 G	4682608.25	4682608.32	4682608.40	0.1626	0.1433
Mercury	8109-04-24 05:31 G	4682924.66	4682924.73	4682924.80	0.1909	0.1513
Mercury	8110-05-19 08:52 G	4683314.86	4683314.87	4683314.89	0.1644	0.1636

Mercury	8111-03-30 23:16 G	4683630.42	4683630.47	4683630.51	0.1886	0.1721
Mercury	8119-10-09 11:16 G	4686744.83	4686744.97	4686745.11	0.1639	0.0854
Mercury	8120-08-20 07:11 G	4687060.70	4687060.80	4687060.90	0.1892	0.0971
Mercury	8129-02-28 13:55 G	4690174.92	4690175.08	4690175.24	0.1634	0.0095
Mercury	8130-01-10 14:52 G	4690491.00	4690491.12	4690491.24	0.1898	0.0193
Venus	8135-01-02 03:07 G	4692308.48	4692308.63	4692308.79	0.1723	0.0766
Earth	8136-06-23 22:19 G	4692847.24	4692847.43	4692847.62	0.1594	0.0230
Moon	8136-06-23 23:45 G	4692847.31	4692847.49	4692847.66	0.1594	0.0176 *
Mercury	8138-07-21 16:48 G	4693605.06	4693605.20	4693605.35	0.1630	0.0641
Mercury	8139-06-02 22:19 G	4693921.32	4693921.43	4693921.54	0.1904	0.0610
Venus	8141-06-17 08:38 G	4694666.69	4694666.86	4694667.03	0.1818	0.0117
Mercury	8147-12-11 20:09 G	4697035.25	4697035.34	4697035.42	0.1626	0.1357
Mercury	8148-10-23 05:31 G	4697351.66	4697351.73	4697351.81	0.1909	0.1434
Mercury	8150-09-28 23:16 G	4698057.43	4698057.47	4698057.50	0.1886	0.1792
Mercury	8159-04-09 11:45 G	4701171.86	4701171.99	4701172.12	0.1639	0.0938
Mercury	8160-02-19 07:11 G	4701487.70	4701487.80	4701487.90	0.1892	0.1049
Mercury	8168-08-29 14:38 G	4704601.95	4704602.11	4704602.26	0.1635	0.0193
Venus	8168-10-30 10:33 G	4704663.79	4704663.94	4704664.08	0.1707	0.0948
Mercury	8169-07-11 14:52 G	4704918.00	4704918.12	4704918.24	0.1898	0.0269
Venus	8173-06-16 21:07 G	4706354.36	4706354.38	4706354.40	0.1804	0.1785
Mercury	8178-01-19 17:31 G	4708032.08	4708032.23	4708032.38	0.1630	0.0556
Mercury	8178-12-01 22:19 G	4708348.32	4708348.43	4708348.55	0.1904	0.0534
Mercury	8187-06-11 20:52 G	4711462.27	4711462.37	4711462.46	0.1626	0.1262
Mercury	8188-04-23 05:45 G	4711778.65	4711778.74	4711778.82	0.1909	0.1360
Mercury	8190-03-29 23:16 G	4712484.46	4712484.47	4712484.48	0.1886	0.1870
Mercury	8198-10-08 12:28 G	4715598.89	4715599.02	4715599.14	0.1639	0.1039
Mercury	8199-08-20 07:11 G	4715914.70	4715914.80	4715914.89	0.1892	0.1116
Venus	8200-10-30 12:14 G	4716350.85	4716351.01	4716351.18	0.1719	0.0533
Venus	8207-04-15 15:07 G	4718708.96	4718709.13	4718709.30	0.1822	0.0452
Mercury	8208-02-29 14:52 G	4719028.96	4719029.12	4719029.28	0.1634	0.0268

Mercury	8209-01-10 14:52 G	4719345.01	4719345.12	4719345.24	0.1898	0.0351
Moon	8215-06-27 16:33 G	4721704.03	4721704.19	4721704.35	0.1594	0.0788
Earth	8215-06-27 21:50 G	4721704.25	4721704.41	4721704.57	0.1594	0.0829 *
Mercury	8217-07-21 18:00 G	4722459.09	4722459.25	4722459.40	0.1630	0.0466
Mercury	8218-06-02 22:33 G	4722775.32	4722775.44	4722775.56	0.1903	0.0449
Mercury	8226-12-11 21:21 G	4725889.28	4725889.39	4725889.49	0.1626	0.1178
Mercury	8227-10-24 05:45 G	4726205.65	4726205.74	4726205.83	0.1909	0.1281
Venus	8234-08-28 20:09 G	4728706.21	4728706.34	4728706.47	0.1704	0.1167
Mercury	8238-04-09 12:57 G	4730025.92	4730026.04	4730026.16	0.1639	0.1127
Mercury	8239-02-19 07:11 G	4730341.71	4730341.80	4730341.89	0.1892	0.1195
Venus	8239-04-15 03:21 G	4730396.54	4730396.64	4730396.74	0.1809	0.1466
Mercury	8247-08-30 15:36 G	4733455.99	4733456.15	4733456.31	0.1635	0.0366
Mercury	8248-07-11 15:07 G	4733772.01	4733772.13	4733772.24	0.1898	0.0424
Mercury	8257-01-19 18:28 G	4736886.11	4736886.27	4736886.43	0.1630	0.0376
Mercury	8257-12-01 22:33 G	4737202.32	4737202.44	4737202.55	0.1904	0.0384
Mercury	8266-06-11 21:36 G	4740316.29	4740316.40	4740316.52	0.1626	0.1097
Venus	8266-08-27 21:21 G	4740393.22	4740393.39	4740393.57	0.1715	0.0294
Mercury	8267-04-24 06:00 G	4740632.66	4740632.75	4740632.84	0.1909	0.1192
Venus	8273-02-09 20:52 G	4742751.21	4742751.37	4742751.52	0.1827	0.0807
Mercury	8277-10-08 13:26 G	4744452.95	4744453.06	4744453.17	0.1639	0.1217
Mercury	8278-08-20 07:26 G	4744768.72	4744768.81	4744768.89	0.1892	0.1275
Moon	8285-12-26 13:55 G	4747453.91	4747454.08	4747454.25	0.1941	0.0952
Earth	8285-12-26 20:38 G	4747454.19	4747454.36	4747454.53	0.1941	0.1137 *
Mercury	8287-02-28 16:04 G	4747883.02	4747883.17	4747883.33	0.1635	0.0459
Mercury	8288-01-10 15:07 G	4748199.01	4748199.13	4748199.24	0.1898	0.0498
Mercury	8296-07-20 18:57 G	4751313.14	4751313.29	4751313.45	0.1630	0.0289
Mercury	8297-06-01 22:48 G	4751629.33	4751629.45	4751629.56	0.1903	0.0302
Venus	8300-06-26 06:00 G	4752748.65	4752748.75	4752748.85	0.1700	0.1383
Venus	8305-02-10 09:50 G	4754438.78	4754438.91	4754439.05	0.1813	0.1151
Mercury	8305-12-11 22:19 G	4754743.31	4754743.43	4754743.55	0.1626	0.1005

Mercury	8306-10-24 05:45 G	4755059.65	4755059.74	4755059.84	0.1909	0.1127
Mercury	8317-04-09 14:09 G	4758879.99	4758880.09	4758880.18	0.1639	0.1315
Mercury	8318-02-19 07:11 G	4759195.72	4759195.80	4759195.89	0.1892	0.1342
Mercury	8326-08-30 16:33 G	4762310.04	4762310.19	4762310.34	0.1635	0.0544
Mercury	8327-07-12 15:07 G	4762626.02	4762626.13	4762626.25	0.1898	0.0584
Venus	8332-06-25 07:11 G	4764435.62	4764435.80	4764435.97	0.1712	0.0073
Mercury	8336-01-20 19:26 G	4765740.15	4765740.31	4765740.47	0.1631	0.0203
Mercury	8336-12-01 22:48 G	4766056.33	4766056.45	4766056.56	0.1903	0.0227
Venus	8338-12-09 03:21 G	4766793.50	4766793.64	4766793.77	0.1831	0.1150
Moon	8341-06-25 06:28 G	4767722.60	4767722.77	4767722.95	0.1593	0.0743
Earth	8341-06-25 07:11 G	4767722.63	4767722.80	4767722.97	0.1593	0.0646 *
Mercury	8345-06-11 22:48 G	4769170.32	4769170.45	4769170.58	0.1626	0.0917
Mercury	8346-04-24 06:00 G	4769486.65	4769486.75	4769486.85	0.1909	0.1040
Mercury	8354-11-02 02:23 G	4772600.59	4772600.60	4772600.61	0.1623	0.1614
Mercury	8355-09-14 12:57 G	4772917.03	4772917.04	4772917.06	0.1913	0.1889
Mercury	8356-10-08 14:38 G	4773307.03	4773307.11	4773307.19	0.1639	0.1412
Mercury	8357-08-20 07:26 G	4773622.73	4773622.81	4773622.89	0.1892	0.1424
Venus	8364-06-24 09:36 G	4776122.83	4776122.90	4776122.96	0.1723	0.1584
Mercury	8366-02-28 17:16 G	4776737.07	4776737.22	4776737.37	0.1635	0.0639
Venus	8366-04-23 15:36 G	4776791.10	4776791.15	4776791.21	0.1697	0.1596
Mercury	8367-01-10 15:07 G	4777053.02	4777053.13	4777053.24	0.1898	0.0650
Venus	8370-12-08 16:19 G	4778481.03	4778481.18	4778481.34	0.1817	0.0823
Mercury	8375-07-21 20:09 G	4780167.18	4780167.34	4780167.50	0.1630	0.0112
Mercury	8376-06-01 22:48 G	4780483.33	4780483.45	4780483.57	0.1903	0.0151
Mercury	8384-12-10 23:16 G	4783597.33	4783597.47	4783597.60	0.1626	0.0837
Mercury	8385-10-23 06:14 G	4783913.65	4783913.76	4783913.86	0.1909	0.0959
Mercury	8394-05-03 02:52 G	4787027.57	4787027.62	4787027.67	0.1623	0.1529
Mercury	8395-03-15 13:11 G	4787344.01	4787344.05	4787344.09	0.1913	0.1807
Mercury	8396-04-08 15:07 G	4787734.07	4787734.13	4787734.19	0.1639	0.1496
Mercury	8397-02-18 07:26 G	4788049.74	4788049.81	4788049.88	0.1892	0.1502

Venus	8398-04-22 16:19 G	4788478.00	4788478.18	4788478.35	0.1708	0.0176
Venus	8404-10-05 08:38 G	4790835.77	4790835.86	4790835.96	0.1835	0.1519
Mercury	8405-08-29 17:45 G	4791164.10	4791164.24	4791164.39	0.1635	0.0734
Mercury	8406-07-11 15:07 G	4791480.03	4791480.13	4791480.24	0.1898	0.0732
Mercury	8415-01-19 20:38 G	4794594.20	4794594.36	4794594.52	0.1631	0.0020
Mercury	8415-12-01 22:48 G	4794910.33	4794910.45	4794910.57	0.1903	0.0072
Earth	8420-06-27 06:00 G	4796579.56	4796579.75	4796579.93	0.1593	0.0402
Moon	8420-06-27 11:16 G	4796579.79	4796579.97	4796580.16	0.1593	0.0461 *
Mercury	8424-06-11 00:00 G	4798024.36	4798024.50	4798024.64	0.1627	0.0741
Mercury	8425-04-23 06:14 G	4798340.65	4798340.76	4798340.86	0.1908	0.0886
Venus	8430-04-21 18:43 G	4800165.18	4800165.28	4800165.39	0.1720	0.1349
Mercury	8433-11-01 03:21 G	4801454.57	4801454.64	4801454.71	0.1623	0.1448
Mercury	8434-09-13 13:11 G	4801771.00	4801771.05	4801771.10	0.1914	0.1728
Mercury	8435-10-08 15:50 G	4802161.13	4802161.16	4802161.20	0.1640	0.1599
Mercury	8436-08-19 07:26 G	4802476.75	4802476.81	4802476.87	0.1892	0.1569
Venus	8436-10-04 22:33 G	4802523.27	4802523.44	4802523.60	0.1821	0.0489
Mercury	8445-02-27 18:14 G	4805591.12	4805591.26	4805591.40	0.1635	0.0816
Mercury	8446-01-09 15:21 G	4805907.03	4805907.14	4805907.25	0.1898	0.0808
Mercury	8454-07-20 21:07 G	4809021.22	4809021.38	4809021.54	0.1631	0.0084
Mercury	8455-06-01 23:02 G	4809337.34	4809337.46	4809337.58	0.1903	0.0052
Mercury	8463-12-11 00:28 G	4812451.37	4812451.52	4812451.66	0.1627	0.0656
Venus	8464-02-18 02:23 G	4812520.43	4812520.60	4812520.77	0.1705	0.0380
Mercury	8464-10-22 06:14 G	4812767.65	4812767.76	4812767.87	0.1909	0.0805
Mercury	8473-05-02 03:50 G	4815881.58	4815881.66	4815881.75	0.1623	0.1359
Mercury	8474-03-14 13:26 G	4816198.00	4816198.06	4816198.12	0.1913	0.1646
Mercury	8476-02-18 07:40 G	4816903.76	4816903.82	4816903.87	0.1892	0.1650
Mercury	8484-08-28 18:57 G	4820018.16	4820018.29	4820018.42	0.1635	0.0919
Mercury	8485-07-10 15:21 G	4820334.04	4820334.14	4820334.25	0.1897	0.0883
Mercury	8494-01-18 21:50 G	4823448.25	4823448.41	4823448.56	0.1631	0.0167
Mercury	8494-11-30 23:02 G	4823764.34	4823764.46	4823764.57	0.1903	0.0116

Venus	8496-02-17 04:19 G	4824207.55	4824207.68	4824207.81	0.1716	0.1113
Earth	8499-06-30 05:31 G	4825436.66	4825436.73	4825436.81	0.1593	0.1460
Moon	8499-06-30 10:19 G	4825436.91	4825436.93	4825436.96	0.1593	0.1570
Venus	8502-08-03 04:48 G	4826565.53	4826565.70	4826565.88	0.1825	0.0159
Mercury	8503-06-12 00:57 G	4826878.39	4826878.54	4826878.68	0.1627	0.0574
Mercury	8504-04-23 06:28 G	4827194.66	4827194.77	4827194.88	0.1908	0.0716
Mercury	8512-11-01 04:19 G	4830308.59	4830308.68	4830308.78	0.1623	0.1273
Mercury	8513-09-13 13:26 G	4830624.99	4830625.06	4830625.13	0.1913	0.1569
Mercury	8515-08-20 07:40 G	4831330.78	4831330.82	4831330.87	0.1891	0.1730
Mercury	8524-02-28 19:26 G	4834445.19	4834445.31	4834445.44	0.1635	0.1011
Mercury	8525-01-09 15:21 G	4834761.04	4834761.14	4834761.24	0.1897	0.0958
Venus	8529-12-16 12:00 G	4836562.84	4836563.00	4836563.17	0.1701	0.0600
Mercury	8533-07-20 22:19 G	4837875.27	4837875.43	4837875.59	0.1631	0.0255
Mercury	8534-06-01 23:02 G	4838191.34	4838191.46	4838191.58	0.1903	0.0181
Mercury	8542-12-11 01:26 G	4841305.41	4841305.56	4841305.71	0.1627	0.0478
Mercury	8543-10-23 06:28 G	4841621.65	4841621.77	4841621.88	0.1908	0.0654
Earth	8546-06-25 16:04 G	4842598.03	4842598.17	4842598.31	0.1592	0.1053
Moon	8546-06-25 16:48 G	4842598.06	4842598.20	4842598.34	0.1592	0.0950 *
Mercury	8552-05-02 04:48 G	4844735.60	4844735.70	4844735.81	0.1623	0.1189
Mercury	8553-03-14 13:40 G	4845051.99	4845052.07	4845052.14	0.1914	0.1483
Mercury	8555-02-18 07:40 G	4845757.78	4845757.82	4845757.85	0.1891	0.1797
Venus	8561-12-15 13:40 G	4848249.92	4848250.07	4848250.22	0.1713	0.0878
Mercury	8563-08-29 19:55 G	4848872.22	4848872.33	4848872.45	0.1635	0.1098
Mercury	8564-07-10 15:36 G	4849188.05	4849188.15	4849188.25	0.1897	0.1044
Venus	8568-05-30 10:48 G	4850607.78	4850607.95	4850608.12	0.1830	0.0202
Moon	8569-12-27 23:31 G	4851184.37	4851184.48	4851184.59	0.1942	0.1633
Mercury	8573-01-18 22:48 G	4852302.29	4852302.45	4852302.61	0.1631	0.0343
Mercury	8573-11-30 23:02 G	4852618.35	4852618.46	4852618.58	0.1903	0.0255
Mercury	8582-06-11 02:09 G	4855732.43	4855732.59	4855732.74	0.1627	0.0388
Mercury	8583-04-23 06:28 G	4856048.66	4856048.77	4856048.89	0.1908	0.0564

Mercury	8591-11-01 05:31 G	4859162.61	4859162.73	4859162.84	0.1623	0.1098
Mercury	8592-09-12 13:40 G	4859478.99	4859479.07	4859479.15	0.1913	0.1406
Mercury	8594-08-19 07:55 G	4860184.82	4860184.83	4860184.83	0.1891	0.1882
Venus	8595-10-13 22:19 G	4860605.28	4860605.43	4860605.58	0.1698	0.0805
Venus	8600-05-31 00:43 G	4862295.50	4862295.53	4862295.56	0.1816	0.1782
Mercury	8603-02-28 20:38 G	4863299.25	4863299.36	4863299.47	0.1635	0.1195
Mercury	8604-01-10 15:36 G	4863615.05	4863615.15	4863615.24	0.1897	0.1112
Mercury	8612-07-20 23:31 G	4866729.32	4866729.48	4866729.63	0.1631	0.0437
Mercury	8613-06-01 23:16 G	4867045.35	4867045.47	4867045.58	0.1903	0.0332
Mercury	8621-12-11 02:23 G	4870159.45	4870159.60	4870159.76	0.1627	0.0306
Mercury	8622-10-23 06:43 G	4870475.66	4870475.78	4870475.89	0.1908	0.0479
Moon	8625-06-28 10:04 G	4871454.74	4871454.92	4871455.11	0.1592	0.0111
Earth	8625-06-28 15:36 G	4871454.97	4871455.15	4871455.34	0.1592	0.0024 *
Venus	8627-10-13 23:16 G	4872292.31	4872292.47	4872292.63	0.1709	0.0655
Mercury	8631-05-03 06:00 G	4873589.63	4873589.75	4873589.87	0.1623	0.1011
Mercury	8632-03-14 13:40 G	4873905.99	4873906.07	4873906.16	0.1913	0.1325
Venus	8634-03-28 16:48 G	4874650.04	4874650.20	4874650.37	0.1834	0.0556
Mercury	8642-08-29 21:21 G	4877726.29	4877726.39	4877726.49	0.1635	0.1293
Mercury	8643-07-11 15:36 G	4878042.06	4878042.15	4878042.24	0.1897	0.1194
Earth	8649-01-01 12:28 G	4880042.90	4880043.02	4880043.15	0.1941	0.1518
Moon	8649-01-01 12:57 G	4880042.90	4880043.04	4880043.18	0.1941	0.1290 *
Mercury	8652-01-20 00:00 G	4881156.35	4881156.50	4881156.65	0.1631	0.0529
Mercury	8652-11-30 23:16 G	4881472.36	4881472.47	4881472.59	0.1903	0.0409
Mercury	8661-06-11 03:07 G	4884586.47	4884586.63	4884586.79	0.1627	0.0208
Venus	8661-08-11 08:23 G	4884647.71	4884647.85	4884647.99	0.1694	0.1015
Mercury	8662-04-23 06:43 G	4884902.66	4884902.78	4884902.90	0.1908	0.0406
Venus	8666-03-28 06:43 G	4886337.68	4886337.78	4886337.89	0.1820	0.1449
Mercury	8670-11-01 06:28 G	4888016.64	4888016.77	4888016.90	0.1623	0.0929
Mercury	8671-09-13 13:55 G	4888332.99	4888333.08	4888333.17	0.1913	0.1242
Mercury	8682-02-27 21:50 G	4892153.32	4892153.41	4892153.49	0.1635	0.1379

Mercury	8683-01-09 15:50 G	4892469.07	4892469.16	4892469.24	0.1897	0.1276
Mercury	8691-07-21 00:43 G	4895583.38	4895583.53	4895583.67	0.1631	0.0624
Mercury	8692-05-31 23:31 G	4895899.36	4895899.48	4895899.59	0.1902	0.0494
Venus	8693-08-10 08:52 G	4896334.70	4896334.87	4896335.04	0.1706	0.0424
Venus	8700-01-23 22:33 G	4898692.29	4898692.44	4898692.59	0.1838	0.0922
Mercury	8700-12-11 03:36 G	4899013.49	4899013.65	4899013.81	0.1627	0.0125
Mercury	8701-10-23 06:43 G	4899329.67	4899329.78	4899329.90	0.1908	0.0327
Moon	8704-07-01 10:19 G	4900311.77	4900311.93	4900312.08	0.1592	0.0995
Earth	8704-07-01 14:23 G	4900311.96	4900312.10	4900312.24	0.1592	0.1045 *
Mercury	8710-05-03 06:57 G	4902443.66	4902443.79	4902443.93	0.1623	0.0836
Mercury	8711-03-15 13:55 G	4902759.99	4902760.08	4902760.18	0.1913	0.1161
Mercury	8719-09-23 10:48 G	4905873.90	4905873.95	4905874.00	0.1619	0.1529
Mercury	8721-08-29 22:33 G	4906580.37	4906580.44	4906580.50	0.1636	0.1483
Mercury	8722-07-11 15:50 G	4906896.08	4906896.16	4906896.24	0.1897	0.1349
Venus	8727-06-09 18:28 G	4908690.15	4908690.27	4908690.39	0.1691	0.1226
Mercury	8731-01-20 01:11 G	4910010.40	4910010.55	4910010.69	0.1631	0.0712
Mercury	8731-12-01 23:31 G	4910326.36	4910326.48	4910326.59	0.1903	0.0569
Venus	8732-01-24 13:11 G	4910379.91	4910380.05	4910380.18	0.1824	0.1120
Mercury	8740-06-11 04:04 G	4913440.51	4913440.67	4913440.83	0.1627	0.0044
Mercury	8741-04-23 06:57 G	4913756.68	4913756.79	4913756.91	0.1908	0.0240
Mercury	8749-11-01 07:40 G	4916870.68	4916870.82	4916870.96	0.1623	0.0745
Mercury	8750-09-13 13:55 G	4917186.99	4917187.08	4917187.18	0.1913	0.1084
Earth	8751-06-27 01:40 G	4917473.50	4917473.57	4917473.64	0.1592	0.1452
Moon	8751-06-27 02:38 G	4917473.59	4917473.61	4917473.63	0.1592	0.1581 *
Mercury	8759-03-24 11:16 G	4920300.90	4920300.97	4920301.04	0.1619	0.1444
Venus	8759-06-08 18:43 G	4920377.11	4920377.28	4920377.45	0.1702	0.0204
Mercury	8761-02-27 23:02 G	4921007.42	4921007.46	4921007.50	0.1636	0.1576
Mercury	8762-01-09 15:50 G	4921323.08	4921323.16	4921323.24	0.1897	0.1425
Venus	8765-11-21 04:33 G	4922734.57	4922734.69	4922734.81	0.1842	0.1281
Mercury	8770-07-21 01:40 G	4924437.43	4924437.57	4924437.71	0.1631	0.0810

Mercury	8771-06-01 23:31 G	4924753.37	4924753.48	4924753.59	0.1902	0.0651
Mercury	8779-12-11 04:48 G	4927867.54	4927867.70	4927867.86	0.1627	0.0066
Mercury	8780-10-22 06:57 G	4928183.67	4928183.79	4928183.91	0.1908	0.0167
Mercury	8789-05-02 07:55 G	4931297.69	4931297.83	4931297.98	0.1623	0.0665
Mercury	8790-03-14 14:09 G	4931613.99	4931614.09	4931614.19	0.1913	0.0994
Venus	8791-06-07 20:09 G	4932064.33	4932064.34	4932064.36	0.1714	0.1703
Venus	8793-04-06 04:48 G	4932732.61	4932732.70	4932732.79	0.1688	0.1429
Venus	8797-11-20 19:11 G	4934422.14	4934422.30	4934422.45	0.1828	0.0776
Mercury	8798-09-22 11:45 G	4934727.91	4934727.99	4934728.07	0.1620	0.1359
Mercury	8799-08-04 21:07 G	4935044.35	4935044.38	4935044.41	0.1918	0.1855
Mercury	8801-07-10 16:04 G	4935750.10	4935750.17	4935750.24	0.1897	0.1513
Mercury	8810-01-19 02:23 G	4938864.46	4938864.60	4938864.73	0.1632	0.0902
Mercury	8810-11-30 23:31 G	4939180.38	4939180.48	4939180.59	0.1902	0.0727
Mercury	8819-06-11 05:31 G	4942294.57	4942294.73	4942294.88	0.1627	0.0163
Mercury	8820-04-22 07:11 G	4942610.68	4942610.80	4942610.92	0.1908	0.0083
Venus	8825-04-05 04:19 G	4944419.51	4944419.68	4944419.86	0.1699	0.0033
Mercury	8828-10-31 08:38 G	4945724.71	4945724.86	4945725.01	0.1623	0.0569
Mercury	8829-09-12 14:09 G	4946040.99	4946041.09	4946041.20	0.1913	0.0920
Earth	8830-06-29 00:57 G	4946330.36	4946330.54	4946330.73	0.1592	0.0403
Moon	8830-06-29 07:26 G	4946330.62	4946330.81	4946331.00	0.1592	0.0221 *
Venus	8831-09-18 09:50 G	4946776.84	4946776.91	4946776.98	0.1846	0.1665
Mercury	8838-03-23 12:14 G	4949154.92	4949155.01	4949155.11	0.1619	0.1272
Mercury	8839-02-02 21:07 G	4949471.34	4949471.38	4949471.42	0.1918	0.1781
Mercury	8841-01-08 15:50 G	4950177.10	4950177.16	4950177.23	0.1897	0.1582
Mercury	8849-07-20 02:52 G	4953291.50	4953291.62	4953291.75	0.1631	0.0995
Mercury	8850-05-31 23:45 G	4953607.38	4953607.49	4953607.60	0.1903	0.0808
Venus	8857-04-04 06:00 G	4956106.67	4956106.75	4956106.84	0.1710	0.1480
Mercury	8858-12-10 05:45 G	4956721.58	4956721.74	4956721.90	0.1627	0.0243
Venus	8859-02-01 15:07 G	4956775.09	4956775.13	4956775.17	0.1685	0.1634
Mercury	8859-10-22 07:11 G	4957037.68	4957037.80	4957037.92	0.1908	0.0054

Venus	8863-09-18 01:11 G	4958464.38	4958464.55	4958464.71	0.1833	0.0429
Mercury	8868-05-01 09:07 G	4960151.73	4960151.88	4960152.04	0.1623	0.0481
Mercury	8869-03-13 14:23 G	4960467.99	4960468.10	4960468.21	0.1913	0.0835
Mercury	8877-09-21 12:57 G	4963581.93	4963582.04	4963582.14	0.1620	0.1181
Mercury	8878-08-03 21:21 G	4963898.34	4963898.39	4963898.44	0.1918	0.1689
Mercury	8880-07-09 16:04 G	4964604.12	4964604.17	4964604.22	0.1897	0.1663
Mercury	8889-01-18 03:36 G	4967718.53	4967718.65	4967718.77	0.1632	0.1090
Mercury	8889-11-29 23:45 G	4968034.39	4968034.49	4968034.60	0.1902	0.0886
Venus	8891-01-31 14:52 G	4968461.95	4968462.12	4968462.30	0.1696	0.0227
Mercury	8898-06-10 06:28 G	4971148.62	4971148.77	4971148.93	0.1627	0.0340
Mercury	8899-04-22 07:11 G	4971464.68	4971464.80	4971464.92	0.1908	0.0087
Mercury	8907-11-01 09:36 G	4974578.75	4974578.90	4974579.06	0.1623	0.0396
Mercury	8908-09-12 14:38 G	4974895.00	4974895.11	4974895.22	0.1913	0.0751
Earth	8909-07-02 00:43 G	4975187.36	4975187.53	4975187.70	0.1592	0.0655
Moon	8909-07-02 04:48 G	4975187.54	4975187.70	4975187.86	0.1592	0.0680 *
Mercury	8917-03-23 13:26 G	4978008.94	4978009.06	4978009.17	0.1620	0.1097
Mercury	8918-02-02 21:21 G	4978325.33	4978325.39	4978325.46	0.1917	0.1610
Mercury	8920-01-09 16:19 G	4979031.13	4979031.18	4979031.22	0.1896	0.1746
Venus	8923-01-31 15:50 G	4980149.05	4980149.16	4980149.28	0.1707	0.1252
Mercury	8928-07-20 04:04 G	4982145.56	4982145.67	4982145.78	0.1632	0.1186
Mercury	8929-06-01 00:00 G	4982461.39	4982461.50	4982461.60	0.1902	0.0968
Venus	8929-07-16 07:11 G	4982506.63	4982506.80	4982506.97	0.1837	0.0073
Earth	8933-01-02 06:28 G	4983772.57	4983772.77	4983772.97	0.1942	0.0528
Moon	8933-01-02 15:21 G	4983772.93	4983773.14	4983773.35	0.1942	0.0622 *
Mercury	8937-12-10 06:57 G	4985575.64	4985575.79	4985575.95	0.1627	0.0434
Mercury	8938-10-22 07:26 G	4985891.69	4985891.81	4985891.93	0.1908	0.0164
Mercury	8947-05-02 10:19 G	4989005.78	4989005.93	4989006.09	0.1623	0.0298
Mercury	8948-03-13 14:38 G	4989322.00	4989322.11	4989322.22	0.1913	0.0670
Mercury	8956-09-21 13:55 G	4992435.96	4992436.08	4992436.20	0.1620	0.1006
Venus	8956-11-29 00:57 G	4992504.37	4992504.54	4992504.71	0.1692	0.0435

Mercury	8957-08-03 21:36 G	4992752.33	4992752.40	4992752.47	0.1918	0.1529
Mercury	8959-07-10 16:19 G	4993458.15	4993458.18	4993458.21	0.1896	0.1819
Mercury	8968-01-19 04:33 G	4996572.59	4996572.69	4996572.79	0.1632	0.1276
Mercury	8968-11-30 00:00 G	4996888.40	4996888.50	4996888.60	0.1902	0.1044
Mercury	8977-06-10 07:40 G	5000002.66	5000002.82	5000002.97	0.1628	0.0523
Mercury	8978-04-22 07:40 G	5000318.70	5000318.82	5000318.93	0.1907	0.0255
Mercury	8986-10-31 10:48 G	5003432.80	5003432.95	5003433.11	0.1624	0.0212
Mercury	8987-09-12 14:38 G	5003749.00	5003749.11	5003749.22	0.1913	0.0589
Venus	8988-11-28 01:26 G	5004191.43	5004191.56	5004191.70	0.1704	0.1026
Venus	8995-05-13 12:43 G	5006548.86	5006549.03	5006549.20	0.1841	0.0297
Mercury	8996-03-22 14:23 G	5006862.97	5006863.10	5006863.23	0.1620	0.0919
Mercury	8997-02-01 21:36 G	5007179.33	5007179.40	5007179.48	0.1917	0.1444
Mercury	8999-01-08 16:19 G	5007885.18	5007885.18	5007885.18	0.1896	0.1896

10TH MILLENNIUM CE

This is a list of transits visible from Mars in the 10th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	9005-08-13 18:28 G		5010293.25	5010293.27	5010293.29	0.1616	0.1601	
Mercury	9007-07-21 05:16 G		5010999.64	5010999.72	5010999.81	0.1632	0.1378	
Mercury	9008-06-01 00:00 G		5011315.41	5011315.50	5011315.60	0.1902	0.1130	
Mercury	9016-12-10 08:09 G		5014429.69	5014429.84	5014429.99	0.1628	0.0619	
Mercury	9017-10-22 07:26 G		5014745.70	5014745.81	5014745.93	0.1908	0.0324	
Venus	9022-09-27 11:31 G		5016546.82	5016546.98	5016547.15	0.1689	0.0635	

Mercury	9026-05-02 11:16 G	5017859.81	5017859.97	5017860.13	0.1624	0.0125
Mercury	9027-03-14 14:52 G	5018176.00	5018176.12	5018176.24	0.1913	0.0500
Venus	9027-05-14 04:04 G	5018236.63	5018236.67	5018236.71	0.1827	0.1772
Moon	9035-06-30 05:16 G	5021205.57	5021205.72	5021205.87	0.1592	0.0953
Earth	9035-06-30 11:16 G	5021205.81	5021205.97	5021206.13	0.1592	0.0793 *
Mercury	9035-09-22 14:52 G	5021289.99	5021290.12	5021290.26	0.1620	0.0831
Mercury	9036-08-03 21:50 G	5021606.33	5021606.41	5021606.49	0.1917	0.1357
Mercury	9045-02-11 18:57 G	5024720.24	5024720.29	5024720.34	0.1616	0.1516
Mercury	9047-01-19 06:00 G	5025426.68	5025426.75	5025426.81	0.1632	0.1472
Mercury	9047-12-01 00:00 G	5025742.41	5025742.50	5025742.60	0.1902	0.1206
Venus	9054-09-26 11:45 G	5028233.84	5028233.99	5028234.14	0.1700	0.0808
Mercury	9056-06-10 08:52 G	5028856.72	5028856.87	5028857.01	0.1628	0.0713
Mercury	9057-04-22 07:40 G	5029172.71	5029172.82	5029172.94	0.1907	0.0411
Venus	9061-03-10 18:28 G	5030591.11	5030591.27	5030591.43	0.1845	0.0668
Mercury	9065-10-31 12:00 G	5032286.84	5032287.00	5032287.16	0.1624	0.0025
Mercury	9066-09-12 14:52 G	5032603.00	5032603.12	5032603.24	0.1912	0.0426
Mercury	9075-03-23 15:36 G	5035717.01	5035717.15	5035717.29	0.1620	0.0742
Mercury	9076-02-02 21:50 G	5036033.32	5036033.41	5036033.50	0.1918	0.1280
Mercury	9084-08-12 19:26 G	5039147.24	5039147.31	5039147.38	0.1616	0.1435
Mercury	9086-07-20 06:28 G	5039853.73	5039853.77	5039853.81	0.1632	0.1564
Mercury	9087-06-01 00:14 G	5040169.43	5040169.51	5040169.60	0.1902	0.1288
Venus	9088-07-24 22:04 G	5040589.27	5040589.42	5040589.57	0.1686	0.0837
Venus	9093-03-10 09:50 G	5042278.80	5042278.91	5042279.02	0.1831	0.1420
Mercury	9095-12-10 09:07 G	5043283.75	5043283.88	5043284.02	0.1628	0.0801
Mercury	9096-10-21 07:55 G	5043599.71	5043599.83	5043599.94	0.1907	0.0494
Mercury	9105-05-02 12:28 G	5046713.87	5046714.02	5046714.18	0.1624	0.0079
Mercury	9106-03-14 15:07 G	5047030.01	5047030.13	5047030.24	0.1912	0.0347
Moon	9114-07-03 07:11 G	5050062.61	5050062.80	5050063.00	0.1592	0.0282
Earth	9114-07-03 10:33 G	5050062.76	5050062.94	5050063.13	0.1592	0.0267 *
Mercury	9114-09-22 16:04 G	5050144.03	5050144.17	5050144.32	0.1620	0.0649

Mercury	9115-08-04 22:04 G	5050460.33	5050460.42	5050460.51	0.1917	0.1190
Venus	9120-07-24 21:36 G	5052276.23	5052276.40	5052276.56	0.1697	0.0584
Mercury	9124-02-12 19:55 G	5053574.25	5053574.33	5053574.42	0.1616	0.1343
Mercury	9126-12-01 00:14 G	5054596.43	5054596.51	5054596.59	0.1902	0.1363
Venus	9127-01-06 23:45 G	5054633.35	5054633.49	5054633.63	0.1849	0.1055
Mercury	9135-06-11 09:50 G	5057710.78	5057710.91	5057711.05	0.1628	0.0901
Mercury	9136-04-22 07:55 G	5058026.71	5058026.83	5058026.94	0.1907	0.0569
Mercury	9144-10-31 12:57 G	5061140.88	5061141.04	5061141.20	0.1624	0.0157
Mercury	9145-09-12 15:07 G	5061457.01	5061457.13	5061457.25	0.1913	0.0256
Mercury	9154-03-23 16:33 G	5064571.04	5064571.19	5064571.34	0.1620	0.0563
Venus	9154-05-23 08:23 G	5064631.71	5064631.85	5064631.98	0.1683	0.1042
Mercury	9155-02-02 22:04 G	5064887.33	5064887.42	5064887.52	0.1917	0.1112
Venus	9159-01-06 15:50 G	5066321.02	5066321.16	5066321.30	0.1835	0.1073
Mercury	9163-08-13 20:23 G	5068001.26	5068001.35	5068001.45	0.1617	0.1256
Mercury	9166-06-01 00:28 G	5069023.44	5069023.52	5069023.59	0.1901	0.1446
Mercury	9174-12-10 10:33 G	5072137.81	5072137.94	5072138.07	0.1628	0.0993
Mercury	9175-10-22 07:55 G	5072453.72	5072453.83	5072453.94	0.1907	0.0651
Mercury	9184-05-01 13:40 G	5075567.91	5075568.07	5075568.23	0.1624	0.0250
Mercury	9185-03-13 15:07 G	5075884.02	5075884.13	5075884.25	0.1912	0.0187
Venus	9186-05-22 07:40 G	5076318.65	5076318.82	5076318.99	0.1693	0.0372
Venus	9192-11-03 05:16 G	5078675.62	5078675.72	5078675.83	0.1853	0.1434
Earth	9193-07-05 09:50 G	5078919.80	5078919.91	5078920.01	0.1591	0.1312
Moon	9193-07-05 14:09 G	5078919.99	5078920.09	5078920.20	0.1591	0.1316 *
Mercury	9193-09-21 17:02 G	5078998.06	5078998.21	5078998.37	0.1620	0.0475
Mercury	9194-08-03 22:19 G	5079314.33	5079314.43	5079314.53	0.1917	0.1028
Mercury	9203-02-11 20:52 G	5082428.26	5082428.37	5082428.48	0.1617	0.1174
Mercury	9203-12-25 05:02 G	5082744.70	5082744.71	5082744.73	0.1922	0.1900
Mercury	9205-11-30 00:28 G	5083450.45	5083450.52	5083450.59	0.1902	0.1525
Mercury	9214-06-10 11:02 G	5086564.84	5086564.96	5086565.08	0.1628	0.1084
Mercury	9215-04-22 08:09 G	5086880.73	5086880.84	5086880.95	0.1907	0.0737

Moon	9217-01-02 14:23 G	5087501.90	5087502.10	5087502.30	0.1942	0.0409
Earth	9217-01-03 00:57 G	5087502.33	5087502.54	5087502.74	0.1942	0.0451
Venus	9220-03-19 18:57 G	5088674.17	5088674.29	5088674.41	0.1680	0.1237
Mercury	9223-10-31 14:09 G	5089994.94	5089995.09	5089995.25	0.1624	0.0345
Mercury	9224-09-11 15:21 G	5090311.02	5090311.14	5090311.26	0.1912	0.0106
Venus	9224-11-02 21:21 G	5090363.23	5090363.39	5090363.55	0.1840	0.0709
Mercury	9233-03-22 17:45 G	5093425.08	5093425.24	5093425.39	0.1620	0.0383
Mercury	9234-02-01 22:19 G	5093741.33	5093741.43	5093741.54	0.1917	0.0945
Earth	9240-06-29 21:21 G	5096081.27	5096081.39	5096081.51	0.1592	0.1185
Moon	9240-06-30 03:21 G	5096081.49	5096081.64	5096081.79	0.1592	0.0964 *
Mercury	9242-08-12 21:36 G	5096855.28	5096855.40	5096855.51	0.1617	0.1079
Mercury	9243-06-25 05:02 G	5097171.68	5097171.71	5097171.75	0.1922	0.1822
Mercury	9245-05-31 00:28 G	5097877.46	5097877.52	5097877.59	0.1901	0.1607
Venus	9252-03-18 17:45 G	5100361.07	5100361.24	5100361.41	0.1690	0.0157
Mercury	9253-12-09 11:31 G	5100991.88	5100991.98	5100992.09	0.1628	0.1182
Mercury	9254-10-21 08:09 G	5101307.73	5101307.84	5101307.94	0.1907	0.0809
Venus	9258-08-31 10:19 G	5102717.91	5102717.93	5102717.95	0.1857	0.1838
Mercury	9263-05-01 14:38 G	5104421.96	5104422.11	5104422.26	0.1624	0.0427
Mercury	9264-03-12 15:36 G	5104738.03	5104738.15	5104738.27	0.1912	0.0065
Mercury	9272-09-20 18:14 G	5107852.11	5107852.26	5107852.42	0.1620	0.0290
Mercury	9273-08-02 22:33 G	5108168.33	5108168.44	5108168.55	0.1917	0.0857
Mercury	9282-02-10 22:04 G	5111282.29	5111282.42	5111282.54	0.1617	0.0994
Mercury	9282-12-24 05:16 G	5111598.67	5111598.72	5111598.77	0.1922	0.1735
Venus	9284-03-17 18:28 G	5112048.22	5112048.27	5112048.31	0.1701	0.1633
Mercury	9284-11-29 00:28 G	5112304.47	5112304.52	5112304.58	0.1901	0.1683
Venus	9286-01-15 05:31 G	5112716.64	5112716.73	5112716.82	0.1677	0.1439
Venus	9290-08-31 02:52 G	5114405.45	5114405.62	5114405.79	0.1844	0.0340
Mercury	9293-06-09 12:14 G	5115418.91	5115419.01	5115419.11	0.1628	0.1276
Mercury	9294-04-21 08:09 G	5115734.74	5115734.84	5115734.95	0.1907	0.0897
Mercury	9302-10-31 15:21 G	5118848.99	5118849.14	5118849.29	0.1624	0.0529

Mercury	9303-09-12 15:36 G	5119165.03	5119165.15	5119165.26	0.1912	0.0098
Mercury	9312-03-22 18:43 G	5122279.12	5122279.28	5122279.44	0.1620	0.0203
Mercury	9313-02-01 22:33 G	5122595.33	5122595.44	5122595.55	0.1917	0.0779
Venus	9318-01-15 04:19 G	5124403.51	5124403.68	5124403.86	0.1687	0.0059
Earth	9319-07-03 20:52 G	5124938.18	5124938.37	5124938.55	0.1592	0.0135
Moon	9319-07-03 22:48 G	5124938.28	5124938.45	5124938.63	0.1592	0.0234 *
Mercury	9321-08-12 22:19 G	5125709.31	5125709.43	5125709.56	0.1617	0.0911
Mercury	9322-06-25 05:31 G	5126025.67	5126025.73	5126025.79	0.1921	0.1643
Mercury	9324-05-31 00:43 G	5126731.49	5126731.53	5126731.57	0.1901	0.1767
Mercury	9331-01-03 02:38 G	5129139.58	5129139.61	5129139.63	0.1614	0.1586
Mercury	9332-12-09 12:43 G	5129845.95	5129846.03	5129846.12	0.1628	0.1367
Mercury	9333-10-21 08:23 G	5130161.75	5130161.85	5130161.95	0.1907	0.0976
Mercury	9342-05-01 15:50 G	5133276.02	5133276.16	5133276.31	0.1624	0.0621
Mercury	9343-03-13 15:36 G	5133592.03	5133592.15	5133592.27	0.1912	0.0153
Venus	9350-01-14 04:19 G	5136090.59	5136090.68	5136090.78	0.1698	0.1412
Mercury	9351-09-21 19:26 G	5136706.15	5136706.31	5136706.46	0.1620	0.0114
Venus	9351-11-13 16:19 G	5136759.14	5136759.18	5136759.22	0.1674	0.1627
Mercury	9352-08-02 22:48 G	5137022.34	5137022.45	5137022.56	0.1917	0.0691
Venus	9356-06-28 08:23 G	5138447.68	5138447.85	5138448.03	0.1848	0.0045
Mercury	9361-02-10 23:02 G	5140136.32	5140136.46	5140136.59	0.1617	0.0817
Mercury	9361-12-24 05:31 G	5140452.66	5140452.73	5140452.79	0.1922	0.1574
Mercury	9363-11-30 00:43 G	5141158.51	5141158.53	5141158.56	0.1901	0.1840
Mercury	9370-07-04 03:07 G	5143566.57	5143566.63	5143566.68	0.1613	0.1503
Mercury	9372-06-09 13:26 G	5144272.99	5144273.06	5144273.13	0.1628	0.1467
Mercury	9373-04-21 08:23 G	5144588.75	5144588.85	5144588.95	0.1907	0.1054
Mercury	9381-10-30 16:19 G	5147703.04	5147703.18	5147703.33	0.1624	0.0707
Mercury	9382-09-11 15:50 G	5148019.04	5148019.16	5148019.28	0.1912	0.0242
Venus	9383-11-12 14:38 G	5148445.94	5148446.11	5148446.28	0.1684	0.0251
Mercury	9391-03-22 19:55 G	5151133.17	5151133.33	5151133.49	0.1620	0.0041
Mercury	9392-02-01 22:48 G	5151449.34	5151449.45	5151449.56	0.1917	0.0612

Moon	9398-07-05 16:04 G	5153795.02	5153795.17	5153795.31	0.1592	0.0918
Earth	9398-07-05 19:55 G	5153795.18	5153795.33	5153795.48	0.1592	0.0927 *
Mercury	9400-08-12 23:31 G	5154563.34	5154563.48	5154563.62	0.1617	0.0728
Mercury	9401-06-25 05:45 G	5154879.66	5154879.74	5154879.81	0.1921	0.1478
Mercury	9410-01-03 03:36 G	5157993.58	5157993.65	5157993.72	0.1614	0.1413
Mercury	9411-12-10 13:55 G	5158700.04	5158700.08	5158700.12	0.1628	0.1561
Mercury	9412-10-21 08:23 G	5159015.76	5159015.85	5159015.95	0.1907	0.1136
Venus	9415-11-12 14:23 G	5160132.98	5160133.10	5160133.22	0.1695	0.1190
Mercury	9421-05-01 17:02 G	5162130.07	5162130.21	5162130.35	0.1624	0.0805
Mercury	9422-03-13 15:50 G	5162446.04	5162446.16	5162446.27	0.1912	0.0319
Venus	9422-04-26 13:26 G	5162489.89	5162490.06	5162490.23	0.1852	0.0431
Mercury	9430-09-21 20:23 G	5165560.19	5165560.35	5165560.51	0.1620	0.0072
Mercury	9431-08-03 23:02 G	5165876.34	5165876.46	5165876.57	0.1917	0.0530
Mercury	9440-02-12 00:00 G	5168990.36	5168990.50	5168990.64	0.1617	0.0644
Mercury	9440-12-24 05:45 G	5169306.66	5169306.74	5169306.82	0.1921	0.1395
Earth	9445-07-01 07:26 G	5170956.79	5170956.81	5170956.84	0.1594	0.1573
Mercury	9449-07-04 04:04 G	5172420.59	5172420.67	5172420.76	0.1614	0.1326
Venus	9449-09-10 01:26 G	5172488.39	5172488.56	5172488.73	0.1681	0.0447
Mercury	9452-04-21 08:38 G	5173442.77	5173442.86	5173442.95	0.1906	0.1219
Venus	9454-04-26 06:14 G	5174177.70	5174177.76	5174177.81	0.1838	0.1722
Mercury	9460-10-30 17:31 G	5176557.10	5176557.23	5176557.37	0.1624	0.0899
Mercury	9461-09-11 15:50 G	5176873.04	5176873.16	5176873.28	0.1912	0.0397
Mercury	9470-03-22 20:52 G	5179987.21	5179987.37	5179987.53	0.1620	0.0165
Mercury	9471-02-01 23:02 G	5180303.34	5180303.46	5180303.58	0.1917	0.0445
Mercury	9479-08-13 00:43 G	5183417.38	5183417.53	5183417.67	0.1617	0.0550
Mercury	9480-06-24 05:45 G	5183733.66	5183733.74	5183733.83	0.1921	0.1318
Venus	9481-09-09 00:43 G	5184175.39	5184175.53	5184175.67	0.1691	0.0977
Venus	9488-02-21 18:43 G	5186532.12	5186532.28	5186532.44	0.1856	0.0823
Mercury	9489-01-02 04:33 G	5186847.59	5186847.69	5186847.78	0.1614	0.1247
Mercury	9491-10-21 08:23 G	5187869.77	5187869.85	5187869.94	0.1907	0.1293

Mercury	9500-05-01 18:00 G	5190984.12	5190984.25	5190984.38	0.1624	0.0985
Earth	9501-01-04 17:45 G	5191232.10	5191232.24	5191232.37	0.1941	0.1474
Moon	9501-01-05 00:43 G	5191232.36	5191232.53	5191232.70	0.1941	0.0952 *
Mercury	9501-03-13 16:04 G	5191300.05	5191300.17	5191300.28	0.1912	0.0486
Mercury	9509-09-21 21:36 G	5194414.24	5194414.40	5194414.55	0.1621	0.0260
Mercury	9510-08-03 23:02 G	5194730.35	5194730.46	5194730.58	0.1917	0.0366
Venus	9515-07-09 12:00 G	5196530.84	5196531.00	5196531.16	0.1677	0.0650
Mercury	9519-02-12 01:11 G	5197844.39	5197844.55	5197844.70	0.1617	0.0465
Mercury	9519-12-25 06:00 G	5198160.66	5198160.75	5198160.84	0.1921	0.1230
Venus	9520-02-22 11:31 G	5198219.86	5198219.98	5198220.10	0.1842	0.1352
Moon	9524-07-04 03:36 G	5199813.46	5199813.65	5199813.85	0.1593	0.0442
Earth	9524-07-04 06:14 G	5199813.59	5199813.76	5199813.94	0.1593	0.0533 *
Mercury	9528-07-04 05:02 G	5201274.61	5201274.71	5201274.82	0.1614	0.1153
Mercury	9531-04-22 08:38 G	5202296.78	5202296.86	5202296.94	0.1906	0.1380
Mercury	9539-10-31 18:43 G	5205411.16	5205411.28	5205411.40	0.1624	0.1088
Mercury	9540-09-11 16:04 G	5205727.05	5205727.17	5205727.28	0.1912	0.0560
Venus	9547-07-08 10:33 G	5208217.79	5208217.94	5208218.10	0.1688	0.0753
Mercury	9549-03-22 21:50 G	5208841.26	5208841.41	5208841.57	0.1620	0.0342
Mercury	9550-02-01 23:16 G	5209157.35	5209157.47	5209157.58	0.1917	0.0285
Venus	9553-12-19 23:31 G	5210574.35	5210574.48	5210574.61	0.1860	0.1234
Mercury	9558-08-13 01:26 G	5212271.41	5212271.56	5212271.72	0.1617	0.0378
Mercury	9559-06-25 06:14 G	5212587.66	5212587.76	5212587.85	0.1921	0.1141
Mercury	9568-01-03 05:31 G	5215701.62	5215701.73	5215701.85	0.1614	0.1067
Mercury	9570-10-21 08:38 G	5216723.79	5216723.86	5216723.94	0.1906	0.1458
Mercury	9579-05-01 19:11 G	5219838.19	5219838.30	5219838.41	0.1625	0.1178
Moon	9580-01-09 11:45 G	5220090.91	5220090.99	5220091.06	0.1942	0.1782
Mercury	9580-03-12 16:04 G	5220154.06	5220154.17	5220154.28	0.1912	0.0644
Venus	9581-05-05 22:19 G	5220573.29	5220573.43	5220573.58	0.1674	0.0853
Venus	9585-12-19 17:02 G	5222262.06	5222262.21	5222262.35	0.1847	0.0981
Mercury	9588-09-20 22:33 G	5223268.29	5223268.44	5223268.59	0.1621	0.0438

Mercury	9589-08-02 23:16 G	5223584.35	5223584.47	5223584.59	0.1916	0.0197
Mercury	9598-02-11 02:09 G	5226698.43	5226698.59	5226698.74	0.1617	0.0282
Mercury	9598-12-24 06:00 G	5227014.65	5227014.75	5227014.85	0.1921	0.1071
Earth	9603-07-07 05:31 G	5228670.55	5228670.73	5228670.90	0.1592	0.0523
Moon	9603-07-07 10:19 G	5228670.75	5228670.93	5228671.12	0.1592	0.0474 *
Mercury	9607-07-04 06:00 G	5230128.63	5230128.75	5230128.87	0.1614	0.0984
Mercury	9610-04-21 08:52 G	5231150.80	5231150.87	5231150.93	0.1907	0.1537
Venus	9613-05-04 20:52 G	5232260.21	5232260.37	5232260.53	0.1685	0.0544
Mercury	9618-10-30 19:40 G	5234265.22	5234265.32	5234265.42	0.1625	0.1267
Mercury	9619-09-11 16:19 G	5234581.07	5234581.18	5234581.29	0.1912	0.0730
Venus	9619-10-17 04:33 G	5234616.61	5234616.69	5234616.77	0.1864	0.1641
Mercury	9628-03-21 23:02 G	5237695.31	5237695.46	5237695.61	0.1621	0.0529
Mercury	9629-01-31 23:16 G	5238011.35	5238011.47	5238011.59	0.1916	0.0126
Mercury	9637-08-12 02:38 G	5241125.45	5241125.61	5241125.77	0.1617	0.0192
Mercury	9638-06-24 06:14 G	5241441.66	5241441.76	5241441.87	0.1921	0.0977
Mercury	9647-01-02 06:28 G	5244555.64	5244555.77	5244555.90	0.1614	0.0893
Venus	9647-03-03 09:21 G	5244615.75	5244615.89	5244616.02	0.1671	0.1045
Mercury	9647-11-14 12:57 G	5244872.01	5244872.04	5244872.06	0.1925	0.1875
Mercury	9649-10-20 08:52 G	5245577.81	5245577.87	5245577.93	0.1906	0.1616
Venus	9651-10-16 21:50 G	5246304.25	5246304.41	5246304.58	0.1851	0.0590
Mercury	9656-05-24 10:48 G	5247985.92	5247985.95	5247985.98	0.1611	0.1572
Mercury	9658-04-30 20:09 G	5248692.26	5248692.34	5248692.43	0.1625	0.1368
Mercury	9659-03-12 16:19 G	5249008.07	5249008.18	5249008.28	0.1912	0.0803
Mercury	9667-09-20 23:31 G	5252122.33	5252122.48	5252122.63	0.1621	0.0619
Mercury	9668-08-01 23:31 G	5252438.36	5252438.48	5252438.60	0.1917	0.0033
Mercury	9677-02-10 03:07 G	5255552.47	5255552.63	5255552.79	0.1617	0.0111
Mercury	9677-12-23 06:28 G	5255868.66	5255868.77	5255868.87	0.1921	0.0894
Venus	9679-03-02 07:11 G	5256302.63	5256302.80	5256302.97	0.1681	0.0334
Earth	9682-07-09 04:33 G	5257527.67	5257527.69	5257527.71	0.1592	0.1576
Mercury	9686-07-03 07:11 G	5258982.66	5258982.80	5258982.93	0.1614	0.0805

Mercury	9687-05-15 12:57 G	5259299.00	5259299.04	5259299.09	0.1925	0.1787
Mercury	9689-04-20 08:52 G	5260004.82	5260004.87	5260004.92	0.1906	0.1698
Mercury	9695-11-23 11:16 G	5262412.91	5262412.97	5262413.03	0.1611	0.1486
Mercury	9697-10-29 20:52 G	5263119.30	5263119.37	5263119.44	0.1625	0.1463
Mercury	9698-09-10 16:19 G	5263435.08	5263435.18	5263435.29	0.1912	0.0888
Mercury	9707-03-23 00:00 G	5266549.36	5266549.50	5266549.65	0.1621	0.0714
Mercury	9708-02-01 23:31 G	5266865.36	5266865.48	5266865.60	0.1916	0.0049
Venus	9712-12-29 19:55 G	5268658.22	5268658.33	5268658.44	0.1669	0.1244
Mercury	9716-08-12 03:36 G	5269979.49	5269979.65	5269979.81	0.1617	0.0036
Mercury	9717-06-24 06:28 G	5270295.66	5270295.77	5270295.88	0.1921	0.0816
Venus	9717-08-14 02:52 G	5270346.45	5270346.62	5270346.80	0.1855	0.0201
Mercury	9726-01-02 07:26 G	5273409.67	5273409.81	5273409.95	0.1614	0.0723
Mercury	9726-11-14 13:11 G	5273726.00	5273726.05	5273726.11	0.1925	0.1698
Mercury	9728-10-20 08:52 G	5274431.83	5274431.87	5274431.91	0.1906	0.1773
Earth	9729-07-04 16:04 G	5274689.02	5274689.17	5274689.32	0.1594	0.0927
Moon	9729-07-04 16:48 G	5274689.08	5274689.20	5274689.33	0.1594	0.1078 *
Mercury	9735-05-25 11:45 G	5276839.91	5276839.99	5276840.06	0.1611	0.1400
Mercury	9737-04-30 21:21 G	5277546.34	5277546.39	5277546.43	0.1625	0.1549
Mercury	9738-03-12 16:33 G	5277862.09	5277862.19	5277862.29	0.1911	0.0974
Venus	9744-12-28 18:00 G	5280345.07	5280345.25	5280345.42	0.1678	0.0137
Mercury	9746-09-21 00:43 G	5280976.39	5280976.53	5280976.66	0.1621	0.0808
Mercury	9747-08-02 23:31 G	5281292.37	5281292.48	5281292.60	0.1916	0.0146
Mercury	9756-02-11 04:04 G	5284406.51	5284406.67	5284406.83	0.1617	0.0080
Mercury	9756-12-23 06:28 G	5284722.66	5284722.77	5284722.88	0.1921	0.0731
Mercury	9765-07-03 08:09 G	5287836.69	5287836.84	5287836.98	0.1614	0.0627
Mercury	9766-05-15 13:11 G	5288152.99	5288153.05	5288153.12	0.1925	0.1619
Mercury	9768-04-20 09:07 G	5288858.86	5288858.88	5288858.90	0.1906	0.1858
Mercury	9774-11-23 12:00 G	5291266.92	5291267.00	5291267.09	0.1611	0.1317
Venus	9776-12-27 17:02 G	5292032.14	5292032.21	5292032.27	0.1689	0.1569
Mercury	9777-09-10 16:33 G	5292289.09	5292289.19	5292289.28	0.1911	0.1047

Venus	9778-10-27 06:57 G	5292700.70	5292700.79	5292700.88	0.1666	0.1429
Venus	9783-06-11 07:40 G	5294388.65	5294388.82	5294389.00	0.1859	0.0210
Mercury	9786-03-22 00:57 G	5295403.41	5295403.54	5295403.68	0.1621	0.0893
Mercury	9787-01-31 23:45 G	5295719.37	5295719.49	5295719.61	0.1917	0.0221
Mercury	9795-08-12 04:33 G	5298833.54	5298833.69	5298833.85	0.1617	0.0169
Mercury	9796-06-23 06:43 G	5299149.67	5299149.78	5299149.90	0.1921	0.0640
Mercury	9805-01-02 08:38 G	5302263.71	5302263.86	5302264.00	0.1614	0.0541
Mercury	9805-11-14 13:26 G	5302579.99	5302580.06	5302580.13	0.1925	0.1537
Moon	9808-07-07 09:07 G	5303545.70	5303545.88	5303546.06	0.1593	0.0192
Earth	9808-07-07 14:38 G	5303545.92	5303546.11	5303546.29	0.1593	0.0117 *
Venus	9810-10-27 04:19 G	5304387.51	5304387.68	5304387.86	0.1675	0.0075
Mercury	9814-05-25 12:43 G	5305693.93	5305694.03	5305694.13	0.1611	0.1228
Mercury	9817-03-12 16:33 G	5306716.09	5306716.19	5306716.28	0.1911	0.1129
Mercury	9825-09-21 01:40 G	5309830.45	5309830.57	5309830.70	0.1621	0.0993
Mercury	9826-08-02 23:45 G	5310146.37	5310146.49	5310146.61	0.1916	0.0299
Mercury	9835-02-11 05:16 G	5313260.56	5313260.72	5313260.87	0.1617	0.0261
Mercury	9835-12-24 06:43 G	5313576.66	5313576.78	5313576.89	0.1921	0.0570
Venus	9842-10-26 03:07 G	5316074.53	5316074.63	5316074.74	0.1686	0.1355
Mercury	9844-07-03 08:52 G	5316690.72	5316690.87	5316691.02	0.1614	0.0457
Venus	9844-08-24 17:31 G	5316743.20	5316743.23	5316743.27	0.1663	0.1625
Mercury	9845-05-15 13:40 G	5317006.99	5317007.07	5317007.15	0.1925	0.1441
Venus	9849-04-08 12:00 G	5318430.84	5318431.00	5318431.17	0.1863	0.0634
Mercury	9853-11-23 12:57 G	5320120.94	5320121.04	5320121.15	0.1611	0.1144
Mercury	9856-09-10 16:48 G	5321143.11	5321143.20	5321143.29	0.1911	0.1217
Earth	9864-01-10 08:23 G	5323820.69	5323820.85	5323821.02	0.1941	0.1193
Moon	9864-01-10 18:57 G	5323821.12	5323821.29	5323821.46	0.1941	0.1106
Mercury	9865-03-22 02:09 G	5324257.47	5324257.59	5324257.71	0.1621	0.1086
Mercury	9866-01-31 23:45 G	5324573.37	5324573.49	5324573.61	0.1916	0.0376
Mercury	9874-08-12 05:45 G	5327687.58	5327687.74	5327687.89	0.1617	0.0351
Mercury	9875-06-24 06:57 G	5328003.67	5328003.79	5328003.90	0.1921	0.0475

Venus	9876-08-23 15:21 G	5328429.97	5328430.14	5328430.31	0.1672	0.0261
Venus	9881-04-08 06:14 G	5330118.68	5330118.76	5330118.85	0.1849	0.1612
Mercury	9884-01-02 09:36 G	5331117.74	5331117.90	5331118.05	0.1614	0.0366
Mercury	9884-11-13 13:26 G	5331433.98	5331434.06	5331434.15	0.1925	0.1371
Moon	9887-07-10 07:55 G	5332402.69	5332402.83	5332402.97	0.1593	0.1101
Earth	9887-07-10 13:40 G	5332402.94	5332403.07	5332403.19	0.1593	0.1167 *
Mercury	9893-05-24 13:40 G	5334547.95	5334548.07	5334548.18	0.1611	0.1057
Mercury	9896-03-11 16:33 G	5335570.11	5335570.19	5335570.28	0.1911	0.1288
Mercury	9904-09-21 02:38 G	5338684.50	5338684.61	5338684.72	0.1621	0.1174
Mercury	9905-08-03 00:00 G	5339000.38	5339000.50	5339000.61	0.1916	0.0466
Venus	9908-08-23 13:40 G	5340116.94	5340117.07	5340117.20	0.1683	0.1146
Mercury	9914-02-11 06:14 G	5342114.60	5342114.76	5342114.91	0.1618	0.0439
Mercury	9914-12-24 06:57 G	5342430.67	5342430.79	5342430.91	0.1921	0.0394
Venus	9915-02-04 17:02 G	5342473.06	5342473.21	5342473.35	0.1867	0.1045
Mercury	9923-07-04 10:04 G	5345544.76	5345544.92	5345545.07	0.1614	0.0273
Mercury	9924-05-15 13:40 G	5345860.98	5345861.07	5345861.16	0.1925	0.1279
Mercury	9932-11-23 14:09 G	5348974.96	5348975.09	5348975.21	0.1611	0.0968
Moon	9934-07-06 00:28 G	5349564.38	5349564.52	5349564.65	0.1596	0.1166
Earth	9934-07-06 00:43 G	5349564.43	5349564.53	5349564.63	0.1596	0.1356 *
Mercury	9935-09-11 16:48 G	5349997.12	5349997.20	5349997.28	0.1911	0.1374
Venus	9942-06-22 01:55 G	5352472.41	5352472.58	5352472.75	0.1669	0.0464
Mercury	9944-03-22 03:07 G	5353111.54	5353111.63	5353111.73	0.1621	0.1271
Mercury	9945-02-01 00:00 G	5353427.38	5353427.50	5353427.61	0.1916	0.0541
Venus	9947-02-04 11:16 G	5354160.84	5354160.97	5354161.10	0.1854	0.1223
Mercury	9953-08-12 06:43 G	5356541.63	5356541.78	5356541.93	0.1618	0.0533
Mercury	9954-06-24 06:57 G	5356857.67	5356857.79	5356857.91	0.1921	0.0315
Mercury	9963-01-02 10:19 G	5359971.78	5359971.93	5359972.09	0.1614	0.0192
Mercury	9963-11-14 13:55 G	5360287.98	5360288.08	5360288.17	0.1925	0.1191
Mercury	9972-05-24 14:38 G	5363401.97	5363402.11	5363402.24	0.1611	0.0882
Venus	9974-06-20 23:45 G	5364159.34	5364159.49	5364159.63	0.1679	0.0923

Mercury	9975-03-12 16:48 G	5364424.13	5364424.20	5364424.28	0.1911	0.1460
Venus	9980-12-01 21:07 G	5366515.27	5366515.38	5366515.48	0.1871	0.1481
Mercury	9981-10-14 18:57 G	5366832.25	5366832.29	5366832.32	0.1608	0.1555
Mercury	9983-09-21 03:50 G	5367538.57	5367538.66	5367538.74	0.1621	0.1366
Mercury	9984-08-02 00:00 G	5367854.39	5367854.50	5367854.61	0.1916	0.0625
Mercury	9993-02-10 07:11 G	5370968.66	5370968.80	5370968.95	0.1618	0.0624
Mercury	9993-12-23 07:11 G	5371284.68	5371284.80	5371284.92	0.1921	0.0231

11TH MILLENNIUM CE

This is a list of transits visible from Mars in the 11th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	10002-07-03 11:02 G		5374398.80	5374398.96	5374399.12	0.1614	0.0093	
Mercury	10003-05-15 13:55 G		5374714.98	5374715.08	5374715.18	0.1925	0.1112	
Venus	10008-04-18 12:43 G		5376514.87	5376515.03	5376515.19	0.1666	0.0660	
Mercury	10011-11-23 14:52 G		5377828.99	5377829.12	5377829.26	0.1611	0.0797	
Venus	10012-12-01 16:04 G		5378203.01	5378203.17	5378203.33	0.1858	0.0827	
Earth	10013-07-08 00:00 G		5378421.32	5378421.50	5378421.68	0.1595	0.0291	
Moon	10013-07-08 05:31 G		5378421.54	5378421.73	5378421.92	0.1595	0.0381	*
Mercury	10014-09-10 16:48 G		5378851.13	5378851.20	5378851.27	0.1911	0.1530	
Mercury	10021-04-14 19:11 G		5381259.24	5381259.30	5381259.36	0.1608	0.1476	
Mercury	10023-03-22 04:04 G		5381965.61	5381965.67	5381965.74	0.1621	0.1454	
Mercury	10024-02-01 00:14 G		5382281.40	5382281.51	5382281.62	0.1916	0.0712	
Mercury	10032-08-11 07:40 G		5385395.68	5385395.82	5385395.96	0.1618	0.0715	

Mercury	10033-06-23 07:11 G	5385711.68	5385711.80	5385711.92	0.1920	0.0150
Venus	10040-04-17 10:19 G	5388201.77	5388201.93	5388202.09	0.1676	0.0722
Mercury	10042-01-01 11:31 G	5388825.82	5388825.98	5388826.14	0.1614	0.0018
Mercury	10042-11-13 13:55 G	5389141.98	5389142.08	5389142.18	0.1925	0.1029
Mercury	10051-05-24 15:36 G	5392256.00	5392256.15	5392256.29	0.1611	0.0707
Mercury	10054-03-11 17:02 G	5393278.15	5393278.21	5393278.27	0.1911	0.1617
Mercury	10060-10-13 19:55 G	5395686.25	5395686.33	5395686.41	0.1608	0.1383
Mercury	10062-09-20 04:48 G	5396392.66	5396392.70	5396392.75	0.1621	0.1556
Mercury	10063-08-02 00:14 G	5396708.40	5396708.51	5396708.62	0.1916	0.0791
Mercury	10072-02-10 08:09 G	5399822.71	5399822.84	5399822.98	0.1618	0.0808
Mercury	10072-12-22 07:11 G	5400138.68	5400138.80	5400138.92	0.1921	0.0067
Venus	10074-02-13 23:45 G	5400557.34	5400557.49	5400557.64	0.1664	0.0850
Venus	10078-09-28 20:38 G	5402245.19	5402245.36	5402245.53	0.1862	0.0415
Mercury	10081-07-02 11:45 G	5403252.84	5403252.99	5403253.15	0.1614	0.0091
Mercury	10082-05-14 14:09 G	5403568.99	5403569.09	5403569.20	0.1925	0.0934
Mercury	10090-11-22 16:04 G	5406683.02	5406683.17	5406683.31	0.1611	0.0618
Mercury	10091-10-04 20:38 G	5406999.33	5406999.36	5406999.39	0.1929	0.1849
Earth	10092-07-09 22:33 G	5407278.28	5407278.44	5407278.61	0.1594	0.0762
Moon	10092-07-10 03:07 G	5407278.48	5407278.63	5407278.78	0.1594	0.0873 *
Mercury	10093-09-09 17:02 G	5407705.16	5407705.21	5407705.26	0.1911	0.1703
Mercury	10100-04-14 20:09 G	5410113.26	5410113.34	5410113.44	0.1608	0.1300
Mercury	10103-02-01 00:14 G	5411135.40	5411135.51	5411135.61	0.1916	0.0869
Venus	10106-02-13 20:52 G	5412244.21	5412244.37	5412244.54	0.1673	0.0514
Mercury	10111-08-12 08:52 G	5414249.74	5414249.87	5414250.00	0.1618	0.0902
Mercury	10112-06-23 07:26 G	5414565.69	5414565.81	5414565.93	0.1921	0.0028
Mercury	10121-01-01 12:28 G	5417679.86	5417680.02	5417680.18	0.1614	0.0177
Mercury	10121-11-13 14:09 G	5417995.98	5417996.09	5417996.20	0.1925	0.0862
Mercury	10130-05-24 16:19 G	5421110.04	5421110.18	5421110.33	0.1611	0.0532
Mercury	10131-04-05 20:38 G	5421426.32	5421426.36	5421426.41	0.1929	0.1761
Mercury	10133-03-11 17:02 G	5422132.17	5422132.21	5422132.25	0.1911	0.1773

Mercury	10139-10-14 20:38 G	5424540.26	5424540.36	5424540.46	0.1608	0.1216
Venus	10139-12-13 10:33 G	5424599.80	5424599.94	5424600.07	0.1661	0.1047
Mercury	10142-08-02 00:28 G	5425562.41	5425562.52	5425562.62	0.1916	0.0961
Venus	10144-07-27 01:11 G	5426287.37	5426287.55	5426287.72	0.1866	0.0009
Moon	10148-01-10 12:57 G	5427549.83	5427550.04	5427550.26	0.1939	0.0136
Earth	10148-01-10 23:02 G	5427550.25	5427550.46	5427550.67	0.1939	0.0087 *
Mercury	10151-02-10 09:07 G	5428676.76	5428676.88	5428677.01	0.1618	0.0993
Mercury	10151-12-23 07:26 G	5428992.69	5428992.81	5428992.93	0.1920	0.0112
Mercury	10160-07-02 12:57 G	5432106.89	5432107.04	5432107.20	0.1614	0.0271
Mercury	10161-05-14 14:23 G	5432422.99	5432423.10	5432423.21	0.1925	0.0771
Mercury	10169-11-22 17:02 G	5435537.05	5435537.21	5435537.36	0.1611	0.0442
Mercury	10170-10-04 20:52 G	5435853.31	5435853.37	5435853.43	0.1929	0.1676
Venus	10171-12-12 07:40 G	5436286.65	5436286.82	5436286.99	0.1670	0.0319
Mercury	10172-09-09 17:02 G	5436559.19	5436559.21	5436559.24	0.1911	0.1863
Mercury	10179-04-14 21:07 G	5438967.27	5438967.38	5438967.49	0.1608	0.1127
Mercury	10182-01-31 00:28 G	5439989.42	5439989.52	5439989.62	0.1916	0.1036
Mercury	10190-08-11 09:50 G	5443103.79	5443103.91	5443104.03	0.1618	0.1089
Mercury	10191-06-23 07:26 G	5443419.70	5443419.81	5443419.93	0.1921	0.0201
Mercury	10200-01-01 13:26 G	5446533.90	5446534.06	5446534.21	0.1614	0.0354
Mercury	10200-11-13 14:23 G	5446849.99	5446850.10	5446850.22	0.1925	0.0682
Venus	10205-10-10 21:50 G	5448642.30	5448642.41	5448642.53	0.1658	0.1227
Mercury	10209-05-24 17:31 G	5449964.07	5449964.23	5449964.38	0.1611	0.0352
Mercury	10210-04-05 20:52 G	5450280.31	5450280.37	5450280.44	0.1929	0.1590
Venus	10210-05-25 05:31 G	5450329.56	5450329.73	5450329.90	0.1870	0.0433
Moon	10218-07-09 03:07 G	5453296.46	5453296.63	5453296.80	0.1597	0.0599
Earth	10218-07-09 08:52 G	5453296.70	5453296.87	5453297.03	0.1597	0.0713 *
Mercury	10218-10-14 21:50 G	5453394.29	5453394.41	5453394.52	0.1608	0.1039
Mercury	10221-08-02 00:28 G	5454416.43	5454416.52	5454416.62	0.1916	0.1121
Mercury	10230-02-10 10:19 G	5457530.82	5457530.93	5457531.04	0.1618	0.1182
Mercury	10230-12-23 07:40 G	5457846.70	5457846.82	5457846.94	0.1920	0.0276

Venus	10237-10-09 18:28 G	5460329.10	5460329.27	5460329.45	0.1667	0.0127
Mercury	10239-07-03 13:55 G	5460960.93	5460961.08	5460961.24	0.1614	0.0454
Mercury	10240-05-14 14:23 G	5461276.99	5461277.10	5461277.22	0.1925	0.0605
Mercury	10248-11-22 17:45 G	5464391.09	5464391.24	5464391.40	0.1611	0.0267
Mercury	10249-10-04 21:07 G	5464707.30	5464707.38	5464707.45	0.1929	0.1504
Mercury	10258-04-14 22:04 G	5467821.30	5467821.42	5467821.55	0.1608	0.0955
Mercury	10261-01-31 00:43 G	5468843.43	5468843.53	5468843.62	0.1916	0.1209
Mercury	10269-08-11 10:48 G	5471957.86	5471957.95	5471958.05	0.1618	0.1276
Venus	10269-10-08 16:33 G	5472016.12	5472016.19	5472016.26	0.1677	0.1530
Mercury	10270-06-23 07:55 G	5472273.71	5472273.83	5472273.94	0.1920	0.0370
Venus	10271-08-08 08:52 G	5472684.78	5472684.87	5472684.96	0.1655	0.1416
Venus	10276-03-21 09:21 G	5474371.74	5474371.89	5474372.05	0.1874	0.0879
Mercury	10279-01-01 14:23 G	5475387.95	5475388.10	5475388.25	0.1615	0.0543
Mercury	10279-11-13 14:38 G	5475703.99	5475704.11	5475704.22	0.1925	0.0520
Mercury	10288-05-23 18:28 G	5478818.11	5478818.27	5478818.43	0.1611	0.0170
Mercury	10289-04-04 21:07 G	5479134.30	5479134.38	5479134.47	0.1929	0.1415
Moon	10297-07-11 04:04 G	5482153.48	5482153.67	5482153.87	0.1596	0.0203
Earth	10297-07-11 08:09 G	5482153.66	5482153.84	5482154.02	0.1596	0.0359 *
Mercury	10297-10-13 22:33 G	5482248.31	5482248.44	5482248.58	0.1608	0.0863
Mercury	10300-08-02 00:43 G	5483270.44	5483270.53	5483270.61	0.1915	0.1287
Venus	10303-08-08 05:45 G	5484371.57	5484371.74	5484371.92	0.1664	0.0069
Mercury	10307-03-07 03:07 G	5485678.59	5485678.63	5485678.67	0.1605	0.1538
Venus	10308-03-22 05:16 G	5486059.61	5486059.72	5486059.82	0.1861	0.1464
Mercury	10309-02-10 11:16 G	5486384.89	5486384.97	5486385.06	0.1618	0.1369
Mercury	10309-12-23 07:40 G	5486700.71	5486700.82	5486700.94	0.1921	0.0441
Mercury	10318-07-03 14:52 G	5489814.98	5489815.12	5489815.27	0.1615	0.0631
Mercury	10319-05-15 14:52 G	5490131.00	5490131.12	5490131.24	0.1925	0.0421
Mercury	10327-11-23 18:57 G	5493245.13	5493245.29	5493245.45	0.1611	0.0079
Mercury	10328-10-04 21:21 G	5493561.30	5493561.39	5493561.47	0.1929	0.1333
Venus	10335-08-07 03:21 G	5496058.54	5496058.64	5496058.74	0.1674	0.1326

Mercury	10337-04-14 23:02 G	5496675.33	5496675.46	5496675.60	0.1608	0.0776
Venus	10337-06-05 20:09 G	5496727.30	5496727.34	5496727.38	0.1653	0.1595
Mercury	10340-02-01 00:43 G	5497697.45	5497697.53	5497697.61	0.1916	0.1367
Venus	10342-01-17 13:55 G	5498413.96	5498414.08	5498414.21	0.1878	0.1312
Mercury	10346-09-05 03:36 G	5500105.59	5500105.65	5500105.72	0.1606	0.1446
Mercury	10348-08-11 12:00 G	5500811.93	5500812.00	5500812.06	0.1618	0.1467
Mercury	10349-06-23 07:55 G	5501127.72	5501127.83	5501127.95	0.1920	0.0535
Mercury	10358-01-01 15:36 G	5504242.01	5504242.15	5504242.29	0.1615	0.0730
Mercury	10358-11-13 14:38 G	5504558.00	5504558.11	5504558.23	0.1925	0.0353
Mercury	10367-05-24 19:26 G	5507672.15	5507672.31	5507672.46	0.1611	0.0035
Mercury	10368-04-04 21:21 G	5507988.30	5507988.39	5507988.49	0.1929	0.1241
Venus	10369-06-04 16:33 G	5508414.02	5508414.19	5508414.36	0.1661	0.0264
Venus	10374-01-17 09:50 G	5510101.77	5510101.91	5510102.05	0.1865	0.1053
Earth	10376-07-14 06:57 G	5511010.71	5511010.79	5511010.88	0.1595	0.1416
Moon	10376-07-14 09:36 G	5511010.83	5511010.90	5511010.97	0.1595	0.1472 *
Mercury	10376-10-13 23:31 G	5511102.34	5511102.48	5511102.62	0.1608	0.0689
Mercury	10379-08-02 00:57 G	5512124.46	5512124.54	5512124.61	0.1916	0.1460
Mercury	10386-03-06 04:04 G	5514532.59	5514532.67	5514532.75	0.1606	0.1359
Mercury	10388-02-10 12:28 G	5515238.98	5515239.02	5515239.06	0.1618	0.1560
Mercury	10388-12-22 07:55 G	5515554.72	5515554.83	5515554.95	0.1920	0.0617
Mercury	10397-07-02 16:04 G	5518669.03	5518669.17	5518669.31	0.1615	0.0823
Mercury	10398-05-14 14:52 G	5518985.00	5518985.12	5518985.24	0.1925	0.0257
Venus	10401-06-03 13:40 G	5520100.94	5520101.07	5520101.20	0.1671	0.1112
Mercury	10406-11-22 19:55 G	5522099.17	5522099.33	5522099.49	0.1611	0.0103
Mercury	10407-10-04 21:36 G	5522415.30	5522415.40	5522415.49	0.1929	0.1158
Venus	10407-11-14 17:45 G	5522456.18	5522456.24	5522456.30	0.1882	0.1769
Mercury	10416-04-14 00:00 G	5525529.36	5525529.50	5525529.65	0.1608	0.0598
Mercury	10419-01-31 00:57 G	5526551.47	5526551.54	5526551.61	0.1915	0.1535
Earth	10423-07-09 17:45 G	5528172.11	5528172.24	5528172.37	0.1600	0.1128
Moon	10423-07-10 00:14 G	5528172.40	5528172.51	5528172.62	0.1600	0.1273

Mercury	10425-09-04 04:33 G	5528959.60	5528959.69	5528959.78	0.1606	0.1277
Mercury	10428-06-22 08:09 G	5529981.73	5529981.84	5529981.95	0.1920	0.0700
Earth	10432-01-11 14:52 G	5531279.94	5531280.12	5531280.30	0.1936	0.0950
Moon	10432-01-11 16:19 G	5531280.01	5531280.18	5531280.36	0.1936	0.0742 *
Venus	10435-04-02 03:50 G	5532456.49	5532456.66	5532456.83	0.1659	0.0449
Mercury	10436-12-31 16:33 G	5533096.06	5533096.19	5533096.32	0.1615	0.0910
Mercury	10437-11-12 15:07 G	5533412.01	5533412.13	5533412.25	0.1925	0.0168
Venus	10439-11-14 14:23 G	5534143.93	5534144.10	5534144.26	0.1869	0.0639
Mercury	10446-05-23 20:23 G	5536526.20	5536526.35	5536526.51	0.1612	0.0197
Mercury	10447-04-04 21:36 G	5536842.30	5536842.40	5536842.50	0.1929	0.1069
Mercury	10455-10-14 00:43 G	5539956.38	5539956.53	5539956.68	0.1608	0.0506
Mercury	10458-08-01 00:57 G	5540978.48	5540978.54	5540978.60	0.1915	0.1622
Mercury	10465-03-05 05:02 G	5543386.61	5543386.71	5543386.81	0.1606	0.1185
Venus	10467-04-01 00:43 G	5544143.39	5544143.53	5544143.68	0.1668	0.0921
Mercury	10467-12-22 08:09 G	5544408.73	5544408.84	5544408.95	0.1920	0.0785
Mercury	10476-07-01 17:02 G	5547523.09	5547523.21	5547523.34	0.1615	0.1012
Mercury	10477-05-13 15:07 G	5547839.01	5547839.13	5547839.25	0.1925	0.0091
Mercury	10485-11-21 20:52 G	5550953.22	5550953.37	5550953.53	0.1611	0.0284
Mercury	10486-10-03 21:50 G	5551269.31	5551269.41	5551269.51	0.1929	0.0978
Mercury	10495-04-14 00:57 G	5554383.39	5554383.54	5554383.69	0.1608	0.0421
Mercury	10496-02-24 04:19 G	5554699.66	5554699.68	5554699.69	0.1932	0.1901
Mercury	10498-01-30 01:11 G	5555405.50	5555405.55	5555405.60	0.1915	0.1710
Venus	10501-01-28 15:07 G	5556498.97	5556499.13	5556499.29	0.1656	0.0634
Earth	10502-07-12 17:16 G	5557029.03	5557029.22	5557029.41	0.1599	0.0053
Moon	10502-07-12 21:07 G	5557029.21	5557029.38	5557029.56	0.1598	0.0120 *
Mercury	10504-09-04 05:31 G	5557813.62	5557813.73	5557813.84	0.1606	0.1097
Venus	10505-09-11 18:43 G	5558186.10	5558186.28	5558186.45	0.1873	0.0210
Mercury	10507-06-23 08:23 G	5558835.74	5558835.85	5558835.95	0.1920	0.0872
Mercury	10516-01-01 17:45 G	5561950.12	5561950.24	5561950.35	0.1615	0.1106
Mercury	10516-11-12 15:07 G	5562266.01	5562266.13	5562266.25	0.1925	0.0072

Mercury	10525-05-23 21:36 G	5565380.24	5565380.40	5565380.55	0.1612	0.0382
Mercury	10526-04-04 21:50 G	5565696.31	5565696.41	5565696.52	0.1928	0.0893
Venus	10533-01-27 11:31 G	5568185.82	5568185.98	5568186.14	0.1665	0.0718
Mercury	10534-10-14 01:40 G	5568810.41	5568810.57	5568810.72	0.1608	0.0327
Mercury	10535-08-26 04:19 G	5569126.64	5569126.68	5569126.72	0.1932	0.1819
Mercury	10537-08-01 01:11 G	5569832.51	5569832.55	5569832.59	0.1915	0.1788
Mercury	10544-03-05 06:00 G	5572240.63	5572240.75	5572240.87	0.1606	0.1016
Mercury	10546-12-22 08:23 G	5573262.75	5573262.85	5573262.95	0.1920	0.0953
Mercury	10555-07-02 18:14 G	5576377.15	5576377.26	5576377.36	0.1615	0.1197
Mercury	10556-05-13 15:21 G	5576693.02	5576693.14	5576693.26	0.1924	0.0119
Mercury	10564-11-21 22:04 G	5579807.27	5579807.42	5579807.57	0.1612	0.0474
Mercury	10565-10-03 22:04 G	5580123.31	5580123.42	5580123.53	0.1928	0.0808
Venus	10566-11-26 02:09 G	5580541.44	5580541.59	5580541.74	0.1654	0.0824
Venus	10571-07-09 22:48 G	5582228.28	5582228.45	5582228.63	0.1877	0.0230
Mercury	10574-04-14 02:09 G	5583237.43	5583237.59	5583237.74	0.1609	0.0239
Mercury	10575-02-24 04:33 G	5583553.63	5583553.69	5583553.74	0.1932	0.1725
Mercury	10577-01-30 01:11 G	5584259.53	5584259.55	5584259.57	0.1915	0.1871
Moon	10581-07-14 13:55 G	5585885.93	5585886.08	5585886.22	0.1597	0.0922
Earth	10581-07-14 17:02 G	5585886.06	5585886.21	5585886.35	0.1597	0.1024 *
Mercury	10583-09-04 06:28 G	5586667.65	5586667.77	5586667.90	0.1606	0.0918
Mercury	10586-06-22 08:38 G	5587689.76	5587689.86	5587689.96	0.1920	0.1046
Mercury	10593-01-24 11:02 G	5590097.95	5590097.96	5590097.98	0.1603	0.1589
Mercury	10594-12-31 18:43 G	5590804.19	5590804.28	5590804.37	0.1615	0.1296
Mercury	10595-11-12 15:21 G	5591120.02	5591120.14	5591120.26	0.1924	0.0171
Venus	10598-11-24 22:48 G	5592228.29	5592228.45	5592228.61	0.1662	0.0532
Mercury	10604-05-23 22:33 G	5594234.29	5594234.44	5594234.58	0.1612	0.0563
Mercury	10605-04-04 22:19 G	5594550.31	5594550.43	5594550.54	0.1929	0.0714
Mercury	10613-10-14 02:38 G	5597664.45	5597664.61	5597664.76	0.1609	0.0147
Mercury	10614-08-26 04:33 G	5597980.63	5597980.69	5597980.76	0.1932	0.1633
Mercury	10623-03-06 06:57 G	5601094.66	5601094.79	5601094.93	0.1606	0.0831

Mercury	10625-12-22 08:38 G	5602116.76	5602116.86	5602116.95	0.1920	0.1125
Moon	10628-07-09 20:52 G	5603047.29	5603047.37	5603047.45	0.1603	0.1425
Earth	10628-07-10 02:52 G	5603047.58	5603047.62	5603047.66	0.1603	0.1559
Mercury	10632-07-26 11:45 G	5604524.94	5604524.99	5604525.04	0.1603	0.1497
Venus	10632-09-23 13:55 G	5604583.94	5604584.08	5604584.22	0.1651	0.0999
Mercury	10634-07-02 19:11 G	5605231.23	5605231.30	5605231.38	0.1615	0.1393
Mercury	10635-05-14 15:36 G	5605547.03	5605547.15	5605547.27	0.1924	0.0268
Venus	10637-05-07 02:52 G	5606270.46	5606270.62	5606270.78	0.1881	0.0678
Mercury	10643-11-22 23:02 G	5608661.32	5608661.46	5608661.61	0.1612	0.0661
Mercury	10644-10-03 22:19 G	5608977.31	5608977.43	5608977.54	0.1928	0.0630
Mercury	10653-04-14 03:07 G	5612091.47	5612091.63	5612091.79	0.1609	0.0054
Mercury	10654-02-24 04:33 G	5612407.62	5612407.69	5612407.76	0.1932	0.1553
Mercury	10662-09-04 07:26 G	5615521.67	5615521.81	5615521.95	0.1606	0.0746
Venus	10664-09-22 09:50 G	5616270.74	5616270.91	5616271.08	0.1660	0.0341
Mercury	10665-06-22 08:38 G	5616543.77	5616543.86	5616543.95	0.1920	0.1215
Venus	10669-05-06 23:02 G	5617958.40	5617958.46	5617958.53	0.1867	0.1709
Mercury	10672-01-25 12:14 G	5618951.94	5618952.01	5618952.08	0.1603	0.1412
Mercury	10673-12-31 19:40 G	5619658.26	5619658.32	5619658.38	0.1615	0.1482
Mercury	10674-11-12 15:50 G	5619974.04	5619974.16	5619974.27	0.1924	0.0361
Mercury	10683-05-23 23:31 G	5623088.35	5623088.48	5623088.62	0.1612	0.0757
Mercury	10684-04-03 22:19 G	5623404.32	5623404.43	5623404.55	0.1928	0.0543
Mercury	10692-10-13 03:36 G	5626518.50	5626518.65	5626518.81	0.1609	0.0047
Mercury	10693-08-25 04:48 G	5626834.63	5626834.70	5626834.78	0.1932	0.1455
Venus	10698-07-22 01:11 G	5628626.43	5628626.55	5628626.67	0.1648	0.1185
Mercury	10702-03-06 07:55 G	5629948.69	5629948.83	5629948.98	0.1606	0.0652
Venus	10703-03-05 06:28 G	5630312.63	5630312.77	5630312.91	0.1885	0.1143
Mercury	10704-12-22 08:52 G	5630970.78	5630970.87	5630970.95	0.1920	0.1299
Moon	10707-07-13 23:45 G	5631904.31	5631904.49	5631904.67	0.1601	0.0640
Earth	10707-07-14 02:38 G	5631904.43	5631904.61	5631904.79	0.1601	0.0466 *
Mercury	10711-07-27 12:43 G	5633378.94	5633379.03	5633379.11	0.1603	0.1325

Mercury	10713-07-02 20:23 G	5634085.33	5634085.35	5634085.38	0.1615	0.1586
Mercury	10714-05-14 15:50 G	5634401.04	5634401.16	5634401.27	0.1924	0.0439
Earth	10716-01-13 09:07 G	5635009.84	5635009.88	5635009.92	0.1932	0.1897
Moon	10716-01-13 13:40 G	5635009.92	5635010.07	5635010.22	0.1932	0.1429 *
Mercury	10722-11-23 00:00 G	5637515.37	5637515.50	5637515.64	0.1612	0.0845
Mercury	10723-10-04 22:33 G	5637831.32	5637831.44	5637831.56	0.1929	0.0448
Venus	10730-07-21 21:21 G	5640313.22	5640313.39	5640313.57	0.1657	0.0163
Mercury	10732-04-14 04:04 G	5640945.51	5640945.67	5640945.83	0.1609	0.0129
Mercury	10733-02-24 05:02 G	5641261.63	5641261.71	5641261.79	0.1932	0.1366
Venus	10735-03-05 03:50 G	5642000.54	5642000.66	5642000.78	0.1872	0.1299
Mercury	10741-09-04 08:23 G	5644375.71	5644375.85	5644376.00	0.1606	0.0562
Mercury	10744-06-22 08:52 G	5645397.79	5645397.87	5645397.95	0.1919	0.1386
Mercury	10751-01-25 13:11 G	5647805.95	5647806.05	5647806.15	0.1603	0.1234
Mercury	10753-11-12 15:50 G	5648828.05	5648828.16	5648828.28	0.1924	0.0530
Mercury	10762-05-24 00:43 G	5651942.40	5651942.53	5651942.66	0.1612	0.0945
Venus	10762-07-20 18:14 G	5652000.20	5652000.26	5652000.33	0.1666	0.1537
Mercury	10763-04-04 22:48 G	5652258.33	5652258.45	5652258.56	0.1928	0.0369
Venus	10764-05-19 12:43 G	5652668.94	5652669.03	5652669.13	0.1646	0.1358
Venus	10768-12-30 10:48 G	5654354.86	5654354.95	5654355.05	0.1888	0.1594
Mercury	10771-10-14 04:33 G	5655372.54	5655372.69	5655372.85	0.1609	0.0227
Mercury	10772-08-25 05:02 G	5655688.62	5655688.71	5655688.80	0.1932	0.1281
Mercury	10781-03-05 08:52 G	5658802.72	5658802.87	5658803.02	0.1606	0.0476
Mercury	10783-12-22 08:52 G	5659824.80	5659824.87	5659824.95	0.1920	0.1471
Earth	10786-07-16 02:23 G	5660761.43	5660761.60	5660761.77	0.1600	0.0624
Moon	10786-07-16 06:57 G	5660761.63	5660761.79	5660761.96	0.1600	0.0806 *
Mercury	10790-07-26 13:40 G	5662232.96	5662233.07	5662233.18	0.1603	0.1145
Mercury	10793-05-13 16:04 G	5663255.06	5663255.17	5663255.29	0.1924	0.0623
Earth	10795-01-17 08:38 G	5663868.80	5663868.86	5663868.93	0.1936	0.1826
Moon	10795-01-17 16:48 G	5663869.11	5663869.20	5663869.29	0.1936	0.1700
Venus	10796-05-18 08:23 G	5664355.68	5664355.85	5664356.03	0.1654	0.0051

Venus	10800-12-30 08:09 G	5666042.69	5666042.84	5666043.00	0.1875	0.0870
Mercury	10801-11-22 01:11 G	5666369.43	5666369.55	5666369.67	0.1612	0.1040
Mercury	10802-10-03 22:48 G	5666685.33	5666685.45	5666685.57	0.1928	0.0277
Mercury	10811-04-14 05:16 G	5669799.56	5669799.72	5669799.87	0.1609	0.0321
Mercury	10812-02-24 05:16 G	5670115.63	5670115.72	5670115.82	0.1932	0.1186
Mercury	10820-09-03 09:36 G	5673229.75	5673229.90	5673230.05	0.1606	0.0378
Mercury	10823-06-22 09:07 G	5674251.81	5674251.88	5674251.95	0.1919	0.1559
Venus	10828-05-17 04:48 G	5676042.60	5676042.70	5676042.81	0.1663	0.1332
Mercury	10830-01-24 13:55 G	5676659.97	5676660.08	5676660.20	0.1603	0.1062
Venus	10830-03-17 00:28 G	5676711.46	5676711.52	5676711.58	0.1643	0.1533
Mercury	10832-11-11 16:04 G	5677682.06	5677682.17	5677682.28	0.1924	0.0696
Mercury	10841-05-23 01:40 G	5680796.46	5680796.57	5680796.68	0.1612	0.1129
Mercury	10842-04-03 23:02 G	5681112.34	5681112.46	5681112.58	0.1928	0.0178
Mercury	10850-10-13 05:45 G	5684226.59	5684226.74	5684226.89	0.1609	0.0413
Mercury	10851-08-25 05:31 G	5684542.63	5684542.73	5684542.83	0.1932	0.1095
Mercury	10860-03-04 10:04 G	5687656.76	5687656.92	5687657.07	0.1606	0.0291
Venus	10862-03-15 20:09 G	5688398.17	5688398.34	5688398.52	0.1652	0.0214
Mercury	10862-12-21 09:07 G	5688678.82	5688678.88	5688678.94	0.1919	0.1640
Venus	10866-10-27 12:14 G	5690084.84	5690085.01	5690085.18	0.1880	0.0435
Mercury	10869-07-25 14:38 G	5691086.99	5691087.11	5691087.23	0.1603	0.0968
Mercury	10872-05-12 16:19 G	5692109.07	5692109.18	5692109.29	0.1924	0.0794
Mercury	10880-11-21 02:23 G	5695223.50	5695223.60	5695223.70	0.1612	0.1233
Mercury	10881-10-02 23:02 G	5695539.34	5695539.46	5695539.58	0.1928	0.0098
Mercury	10890-04-13 06:14 G	5698653.61	5698653.76	5698653.91	0.1609	0.0505
Mercury	10891-02-23 05:31 G	5698969.63	5698969.73	5698969.83	0.1932	0.1012
Venus	10894-03-14 16:33 G	5700085.06	5700085.19	5700085.31	0.1661	0.1146
Mercury	10899-09-03 10:19 G	5702083.78	5702083.93	5702084.09	0.1606	0.0206
Mercury	10902-06-22 09:21 G	5703105.84	5703105.89	5703105.94	0.1920	0.1732
Mercury	10909-01-24 15:07 G	5705514.00	5705514.13	5705514.26	0.1604	0.0880
Mercury	10911-11-12 16:19 G	5706536.08	5706536.18	5706536.29	0.1924	0.0884

Earth	10912-07-13 11:31 G	5706779.83	5706779.98	5706780.14	0.1605	0.0892
Moon	10912-07-13 13:40 G	5706779.91	5706780.07	5706780.23	0.1605	0.0685 *
Mercury	10918-06-16 19:55 G	5708944.29	5708944.33	5708944.37	0.1601	0.1542
Mercury	10920-05-23 02:52 G	5709650.53	5709650.62	5709650.71	0.1612	0.1328
Mercury	10921-04-03 23:16 G	5709966.35	5709966.47	5709966.59	0.1928	0.0066
Venus	10928-01-12 07:40 G	5712440.65	5712440.82	5712440.99	0.1649	0.0394
Mercury	10929-10-13 06:43 G	5713080.64	5713080.78	5713080.93	0.1609	0.0601
Mercury	10930-08-25 05:45 G	5713396.63	5713396.74	5713396.85	0.1932	0.0914
Venus	10932-08-24 16:19 G	5714127.01	5714127.18	5714127.36	0.1883	0.0044
Mercury	10939-03-05 11:02 G	5716510.80	5716510.96	5716511.12	0.1606	0.0105
Mercury	10940-01-15 11:45 G	5716826.97	5716826.99	5716827.02	0.1935	0.1865
Mercury	10941-12-21 09:21 G	5717532.86	5717532.89	5717532.93	0.1919	0.1814
Mercury	10948-07-25 15:36 G	5719941.01	5719941.15	5719941.28	0.1603	0.0792
Mercury	10951-05-13 16:33 G	5720963.08	5720963.19	5720963.29	0.1924	0.0966
Mercury	10957-12-15 20:09 G	5723371.28	5723371.34	5723371.40	0.1601	0.1460
Mercury	10959-11-22 03:07 G	5724077.56	5724077.63	5724077.71	0.1612	0.1418
Venus	10960-01-11 03:21 G	5724127.50	5724127.64	5724127.78	0.1658	0.0948
Mercury	10960-10-02 23:16 G	5724393.35	5724393.47	5724393.59	0.1928	0.0110
Mercury	10969-04-13 07:11 G	5727507.66	5727507.80	5727507.94	0.1609	0.0692
Mercury	10970-02-23 05:45 G	5727823.63	5727823.74	5727823.85	0.1932	0.0829
Mercury	10978-09-03 11:31 G	5730937.82	5730937.98	5730938.14	0.1606	0.0019
Mercury	10979-07-16 12:14 G	5731253.96	5731254.01	5731254.05	0.1935	0.1762
Mercury	10981-06-21 09:36 G	5731959.88	5731959.90	5731959.91	0.1919	0.1904
Mercury	10988-01-24 16:04 G	5734368.03	5734368.17	5734368.31	0.1603	0.0700
Mercury	10990-11-11 16:33 G	5735390.09	5735390.19	5735390.29	0.1924	0.1055
Moon	10991-07-16 07:40 G	5735636.64	5735636.82	5735637.00	0.1603	0.0038
Earth	10991-07-16 11:31 G	5735636.80	5735636.98	5735637.17	0.1603	0.0212 *
Venus	10993-11-08 18:57 G	5736483.13	5736483.29	5736483.46	0.1647	0.0580
Mercury	10997-06-15 20:52 G	5737798.29	5737798.37	5737798.45	0.1601	0.1368
Venus	10998-06-21 20:09 G	5738169.17	5738169.34	5738169.51	0.1887	0.0481

Mercury	10999-05-23 03:50 G	5738504.61	5738504.66	5738504.71	0.1612	0.1519
Mercury	11000-04-03 23:16 G	5738820.36	5738820.47	5738820.59	0.1928	0.0185

12TH MILLENNIUM CE

This is a list of transits visible from Mars in the 12th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	11008-10-13 07:40 G		5741934.69	5741934.82	5741934.96	0.1609	0.0790	
Mercury	11009-08-25 06:00 G		5742250.64	5742250.75	5742250.86	0.1932	0.0738	
Mercury	11018-03-05 12:00 G		5745364.84	5745365.00	5745365.15	0.1606	0.0080	
Mercury	11019-01-15 12:14 G		5745680.95	5745681.01	5745681.07	0.1935	0.1670	
Venus	11025-11-08 14:52 G		5748169.97	5748170.12	5748170.28	0.1655	0.0767	
Mercury	11027-07-26 16:33 G		5748795.05	5748795.19	5748795.33	0.1604	0.0609	
Mercury	11030-05-13 16:48 G		5749817.10	5749817.20	5749817.29	0.1924	0.1146	
Mercury	11036-12-15 21:21 G		5752225.30	5752225.39	5752225.48	0.1601	0.1281	
Mercury	11039-10-03 23:31 G		5753247.36	5753247.48	5753247.60	0.1928	0.0259	
Mercury	11048-04-13 08:23 G		5756361.72	5756361.85	5756361.98	0.1609	0.0884	
Mercury	11049-02-23 06:00 G		5756677.64	5756677.75	5756677.87	0.1932	0.0650	
Mercury	11057-09-03 12:28 G		5759791.87	5759792.02	5759792.18	0.1606	0.0176	
Mercury	11058-07-16 12:28 G		5760107.95	5760108.02	5760108.08	0.1935	0.1588	
Venus	11059-09-07 06:57 G		5760525.63	5760525.79	5760525.94	0.1644	0.0750	
Venus	11064-04-18 23:31 G		5762211.33	5762211.48	5762211.63	0.1891	0.0959	
Mercury	11067-01-24 16:48 G		5763222.06	5763222.20	5763222.35	0.1603	0.0526	
Mercury	11069-11-11 16:48 G		5764244.11	5764244.20	5764244.29	0.1924	0.1223	

Moon	11070-07-19 06:00 G	5764493.64	5764493.75	5764493.85	0.1601	0.1318
Earth	11070-07-19 11:45 G	5764493.88	5764493.99	5764494.09	0.1601	0.1304
Mercury	11076-06-15 21:36 G	5766652.30	5766652.40	5766652.51	0.1601	0.1194
Moon	11079-01-18 00:43 G	5767598.31	5767598.53	5767598.75	0.1932	0.0545
Earth	11079-01-18 04:33 G	5767598.51	5767598.69	5767598.88	0.1932	0.0933 *
Mercury	11079-04-03 23:45 G	5767674.37	5767674.49	5767674.61	0.1928	0.0357
Mercury	11087-10-13 08:52 G	5770788.74	5770788.87	5770788.99	0.1609	0.0979
Mercury	11088-08-24 06:14 G	5771104.65	5771104.76	5771104.88	0.1932	0.0556
Venus	11091-09-06 02:09 G	5772212.43	5772212.59	5772212.76	0.1652	0.0581
Venus	11096-04-18 21:07 G	5773899.29	5773899.38	5773899.48	0.1878	0.1528
Mercury	11097-03-04 12:57 G	5774218.89	5774219.04	5774219.20	0.1606	0.0266
Mercury	11098-01-14 12:28 G	5774534.95	5774535.02	5774535.10	0.1935	0.1493
Mercury	11106-07-26 17:31 G	5777649.08	5777649.23	5777649.38	0.1604	0.0426
Mercury	11109-05-13 17:02 G	5778671.12	5778671.21	5778671.29	0.1924	0.1321
Mercury	11115-12-16 22:19 G	5781079.31	5781079.43	5781079.54	0.1601	0.1104
Moon	11117-07-14 18:00 G	5781655.19	5781655.25	5781655.31	0.1609	0.1518
Earth	11117-07-14 20:23 G	5781655.24	5781655.35	5781655.45	0.1609	0.1323 *
Mercury	11118-10-03 23:45 G	5782101.37	5782101.49	5782101.61	0.1928	0.0435
Venus	11125-07-05 18:14 G	5784568.12	5784568.26	5784568.41	0.1642	0.0935
Mercury	11127-04-14 09:21 G	5785215.77	5785215.89	5785216.00	0.1609	0.1071
Mercury	11128-02-24 06:14 G	5785531.65	5785531.76	5785531.88	0.1932	0.0472
Venus	11130-02-15 02:52 G	5786253.51	5786253.62	5786253.74	0.1895	0.1442
Mercury	11136-09-03 13:26 G	5788645.91	5788646.06	5788646.21	0.1606	0.0354
Mercury	11137-07-16 12:43 G	5788961.95	5788962.03	5788962.12	0.1935	0.1394
Mercury	11146-01-24 18:00 G	5792076.10	5792076.25	5792076.40	0.1604	0.0337
Mercury	11148-11-11 17:02 G	5793098.13	5793098.21	5793098.29	0.1923	0.1405
Mercury	11155-06-16 22:33 G	5795506.33	5795506.44	5795506.56	0.1601	0.1015
Venus	11157-07-04 13:55 G	5796254.91	5796255.08	5796255.25	0.1650	0.0398
Mercury	11158-04-03 23:45 G	5796528.38	5796528.49	5796528.61	0.1928	0.0532
Venus	11162-02-15 01:40 G	5797941.43	5797941.57	5797941.71	0.1882	0.1100

Mercury	11166-10-13 09:50 G	5799642.81	5799642.91	5799643.02	0.1609	0.1170
Mercury	11167-08-25 06:28 G	5799958.65	5799958.77	5799958.89	0.1932	0.0376
Mercury	11176-03-04 14:09 G	5803072.94	5803073.09	5803073.24	0.1606	0.0454
Mercury	11177-01-14 12:43 G	5803388.94	5803389.03	5803389.12	0.1935	0.1317
Mercury	11185-07-25 18:28 G	5806503.11	5806503.27	5806503.42	0.1604	0.0253
Mercury	11188-05-12 17:02 G	5807525.14	5807525.21	5807525.29	0.1924	0.1488
Venus	11191-05-03 06:00 G	5808610.63	5808610.75	5808610.88	0.1639	0.1105
Mercury	11194-12-15 23:02 G	5809933.34	5809933.46	5809933.59	0.1601	0.0929
Earth	11196-07-16 19:55 G	5810512.15	5810512.33	5810512.52	0.1607	0.0227
Moon	11196-07-17 00:57 G	5810512.35	5810512.54	5810512.74	0.1607	0.0039 *
Mercury	11197-10-03 00:00 G	5810955.39	5810955.50	5810955.62	0.1928	0.0622
Mercury	11204-05-07 04:04 G	5813363.66	5813363.67	5813363.69	0.1599	0.1585
Mercury	11206-04-13 10:19 G	5814069.84	5814069.93	5814070.03	0.1609	0.1265
Mercury	11207-02-23 06:28 G	5814385.66	5814385.77	5814385.89	0.1932	0.0298
Mercury	11215-09-03 14:38 G	5817499.96	5817500.11	5817500.25	0.1606	0.0547
Mercury	11216-07-15 12:57 G	5817815.95	5817816.04	5817816.14	0.1935	0.1215
Venus	11223-05-02 01:11 G	5820297.37	5820297.55	5820297.72	0.1647	0.0215
Mercury	11225-01-23 18:57 G	5820930.13	5820930.29	5820930.44	0.1604	0.0156
Mercury	11227-11-11 17:16 G	5821952.15	5821952.22	5821952.28	0.1924	0.1578
Venus	11227-12-13 05:31 G	5821983.56	5821983.73	5821983.89	0.1886	0.0643
Mercury	11234-06-15 23:31 G	5824360.35	5824360.48	5824360.61	0.1601	0.0837
Mercury	11237-04-03 00:00 G	5825382.39	5825382.50	5825382.61	0.1928	0.0702
Mercury	11243-11-06 04:33 G	5827790.64	5827790.69	5827790.74	0.1599	0.1502
Mercury	11245-10-12 10:48 G	5828496.87	5828496.95	5828497.04	0.1609	0.1360
Mercury	11246-08-24 06:43 G	5828812.66	5828812.78	5828812.90	0.1932	0.0197
Mercury	11255-03-04 14:52 G	5831926.98	5831927.12	5831927.27	0.1606	0.0633
Venus	11255-04-30 20:52 G	5831984.31	5831984.37	5831984.42	0.1656	0.1565
Mercury	11256-01-14 13:11 G	5832242.95	5832243.05	5832243.15	0.1935	0.1124
Venus	11257-02-27 17:45 G	5832653.14	5832653.24	5832653.35	0.1637	0.1282
Mercury	11264-07-24 19:26 G	5835357.15	5835357.31	5835357.47	0.1604	0.0063

Mercury	11267-05-12 17:16 G	5836379.17	5836379.22	5836379.28	0.1923	0.1670
Mercury	11273-12-15 00:00 G	5838787.37	5838787.50	5838787.64	0.1601	0.0748
Earth	11275-07-19 19:55 G	5839369.18	5839369.33	5839369.49	0.1605	0.0883
Moon	11275-07-20 01:11 G	5839369.39	5839369.55	5839369.71	0.1605	0.0785 *
Mercury	11276-10-02 00:14 G	5839809.40	5839809.51	5839809.62	0.1928	0.0793
Mercury	11283-05-07 05:02 G	5842217.64	5842217.71	5842217.78	0.1599	0.1410
Mercury	11285-04-12 11:31 G	5842923.91	5842923.98	5842924.04	0.1609	0.1456
Mercury	11286-02-22 06:57 G	5843239.66	5843239.79	5843239.91	0.1931	0.0128
Venus	11289-02-26 12:57 G	5844339.87	5844340.04	5844340.21	0.1645	0.0033
Venus	11293-10-09 09:07 G	5846025.71	5846025.88	5846026.06	0.1890	0.0179
Mercury	11294-09-02 15:36 G	5846354.01	5846354.15	5846354.29	0.1606	0.0734
Mercury	11295-07-15 13:11 G	5846669.95	5846670.05	5846670.15	0.1935	0.1042
Mercury	11304-01-24 19:55 G	5849784.17	5849784.33	5849784.48	0.1604	0.0053
Mercury	11306-11-11 17:16 G	5850806.18	5850806.22	5850806.27	0.1924	0.1747
Mercury	11313-06-16 00:28 G	5853214.38	5853214.52	5853214.66	0.1601	0.0659
Mercury	11316-04-03 00:28 G	5854236.41	5854236.52	5854236.62	0.1928	0.0889
Venus	11321-02-26 08:23 G	5856026.76	5856026.85	5856026.95	0.1653	0.1381
Mercury	11322-11-06 05:31 G	5856644.64	5856644.73	5856644.81	0.1599	0.1324
Venus	11322-12-27 05:45 G	5856695.66	5856695.74	5856695.82	0.1635	0.1447
Mercury	11324-10-12 12:00 G	5857350.96	5857351.00	5857351.04	0.1610	0.1553
Mercury	11325-08-24 06:57 G	5857666.67	5857666.79	5857666.91	0.1931	0.0020
Mercury	11334-03-04 16:04 G	5860781.03	5860781.17	5860781.30	0.1606	0.0826
Mercury	11335-01-14 13:26 G	5861096.95	5861097.06	5861097.16	0.1935	0.0947
Mercury	11343-07-25 20:23 G	5864211.19	5864211.35	5864211.51	0.1604	0.0122
Mercury	11344-06-05 19:26 G	5864527.29	5864527.31	5864527.33	0.1938	0.1900
Mercury	11346-05-12 17:31 G	5865233.20	5865233.23	5865233.26	0.1923	0.1843
Mercury	11352-12-15 00:57 G	5867641.40	5867641.54	5867641.69	0.1601	0.0569
Venus	11354-12-26 00:28 G	5868382.34	5868382.52	5868382.69	0.1642	0.0150
Mercury	11355-10-03 00:14 G	5868663.41	5868663.51	5868663.62	0.1928	0.0966
Venus	11359-08-07 12:43 G	5870067.85	5870068.03	5870068.20	0.1893	0.0301

Mercury	11362-05-07 05:45 G	5871071.65	5871071.74	5871071.84	0.1599	0.1242
Moon	11363-01-18 18:28 G	5871328.09	5871328.27	5871328.46	0.1927	0.0229
Earth	11363-01-18 23:45 G	5871328.28	5871328.49	5871328.70	0.1927	0.0024 *
Mercury	11365-02-22 06:57 G	5872093.67	5872093.79	5872093.91	0.1932	0.0083
Mercury	11373-09-02 16:33 G	5875208.06	5875208.19	5875208.32	0.1607	0.0918
Mercury	11374-07-15 13:40 G	5875523.96	5875524.07	5875524.18	0.1935	0.0848
Mercury	11383-01-23 20:52 G	5878638.21	5878638.37	5878638.52	0.1604	0.0213
Mercury	11383-12-05 19:26 G	5878954.28	5878954.31	5878954.35	0.1938	0.1816
Venus	11386-12-24 19:26 G	5880069.19	5880069.31	5880069.43	0.1651	0.1183
Venus	11388-10-23 17:45 G	5880738.22	5880738.24	5880738.26	0.1632	0.1617
Mercury	11392-06-15 01:26 G	5882068.41	5882068.56	5882068.71	0.1601	0.0478
Mercury	11395-04-03 00:28 G	5883090.42	5883090.52	5883090.62	0.1928	0.1056
Moon	11401-07-17 22:33 G	5885387.29	5885387.44	5885387.59	0.1611	0.0921
Earth	11401-07-18 04:04 G	5885387.50	5885387.67	5885387.84	0.1611	0.0669 *
Mercury	11401-11-06 06:14 G	5885498.66	5885498.76	5885498.87	0.1599	0.1148
Mercury	11404-08-24 07:11 G	5886520.68	5886520.80	5886520.92	0.1931	0.0164
Mercury	11413-03-04 17:02 G	5889635.09	5889635.21	5889635.33	0.1606	0.1015
Mercury	11414-01-14 13:26 G	5889950.95	5889951.06	5889951.17	0.1935	0.0775
Venus	11420-10-23 12:00 G	5892424.83	5892425.00	5892425.17	0.1640	0.0331
Mercury	11422-07-25 21:21 G	5893065.23	5893065.39	5893065.54	0.1604	0.0304
Mercury	11423-06-06 19:55 G	5893381.27	5893381.33	5893381.38	0.1938	0.1712
Venus	11425-06-04 15:36 G	5894110.00	5894110.15	5894110.31	0.1897	0.0793
Mercury	11431-12-16 01:55 G	5896495.43	5896495.58	5896495.73	0.1601	0.0390
Mercury	11434-10-03 00:43 G	5897517.43	5897517.53	5897517.62	0.1928	0.1152
Mercury	11441-05-07 06:43 G	5899925.67	5899925.78	5899925.90	0.1599	0.1060
Mercury	11444-02-23 07:11 G	5900947.68	5900947.80	5900947.92	0.1931	0.0247
Mercury	11452-09-02 17:31 G	5904062.12	5904062.23	5904062.34	0.1607	0.1110
Venus	11452-10-22 07:11 G	5904111.66	5904111.80	5904111.94	0.1648	0.1004
Mercury	11453-07-15 13:55 G	5904377.96	5904378.08	5904378.19	0.1935	0.0674
Venus	11457-06-04 14:23 G	5905798.04	5905798.10	5905798.16	0.1884	0.1759

Mercury	11462-01-23 21:50 G	5907492.26	5907492.41	5907492.56	0.1604	0.0397
Mercury	11462-12-05 19:55 G	5907808.26	5907808.33	5907808.39	0.1938	0.1632
Mercury	11471-06-16 02:23 G	5910922.45	5910922.60	5910922.75	0.1601	0.0297
Mercury	11474-04-03 00:43 G	5911944.43	5911944.53	5911944.62	0.1928	0.1230
Moon	11480-07-19 21:50 G	5914244.23	5914244.41	5914244.59	0.1609	0.0510
Earth	11480-07-20 03:36 G	5914244.47	5914244.65	5914244.83	0.1609	0.0435 *
Mercury	11480-11-05 07:11 G	5914352.68	5914352.80	5914352.92	0.1599	0.0977
Mercury	11483-08-24 07:26 G	5915374.69	5915374.81	5915374.93	0.1932	0.0341
Venus	11486-08-21 00:00 G	5916467.33	5916467.50	5916467.66	0.1638	0.0500
Venus	11491-04-01 18:43 G	5918152.15	5918152.28	5918152.40	0.1901	0.1302
Mercury	11492-03-03 18:00 G	5918489.14	5918489.25	5918489.35	0.1607	0.1200
Mercury	11493-01-13 13:55 G	5918804.96	5918805.08	5918805.20	0.1935	0.0582
Mercury	11501-07-25 22:19 G	5921919.28	5921919.43	5921919.58	0.1604	0.0492
Mercury	11502-06-06 19:55 G	5922235.26	5922235.33	5922235.41	0.1938	0.1537
Mercury	11510-12-16 02:52 G	5925349.46	5925349.62	5925349.77	0.1601	0.0207
Mercury	11513-10-03 00:43 G	5926371.45	5926371.53	5926371.62	0.1928	0.1320
Venus	11518-08-20 18:43 G	5928154.13	5928154.28	5928154.43	0.1645	0.0820
Mercury	11520-05-07 07:40 G	5928779.69	5928779.82	5928779.95	0.1599	0.0884
Mercury	11523-02-23 07:26 G	5929801.69	5929801.81	5929801.93	0.1931	0.0426
Venus	11523-04-02 17:31 G	5929840.11	5929840.23	5929840.36	0.1888	0.1283
Mercury	11529-09-27 12:43 G	5932209.99	5932210.03	5932210.06	0.1597	0.1544
Mercury	11531-09-03 18:28 G	5932916.18	5932916.27	5932916.36	0.1607	0.1301
Mercury	11532-07-15 13:55 G	5933231.96	5933232.08	5933232.20	0.1935	0.0498
Mercury	11541-01-23 22:33 G	5936346.30	5936346.44	5936346.59	0.1604	0.0579
Mercury	11541-12-05 20:09 G	5936662.26	5936662.34	5936662.42	0.1938	0.1441
Mercury	11550-06-16 03:21 G	5939776.48	5939776.64	5939776.79	0.1602	0.0123
Venus	11552-06-18 11:16 G	5940509.81	5940509.97	5940510.13	0.1635	0.0688
Mercury	11553-04-03 00:57 G	5940798.46	5940798.54	5940798.62	0.1928	0.1414
Venus	11557-01-27 21:36 G	5942194.35	5942194.40	5942194.45	0.1904	0.1814
Earth	11559-07-24 03:36 G	5943101.60	5943101.65	5943101.70	0.1607	0.1543

Moon	11559-07-24 05:02 G	5943101.63	5943101.71	5943101.79	0.1607	0.1461 *
Mercury	11559-11-06 08:09 G	5943206.70	5943206.84	5943206.97	0.1599	0.0796
Mercury	11562-08-24 07:40 G	5944228.70	5944228.82	5944228.93	0.1931	0.0519
Mercury	11569-03-28 13:11 G	5946636.99	5946637.05	5946637.11	0.1597	0.1454
Mercury	11571-03-04 18:57 G	5947343.22	5947343.29	5947343.37	0.1607	0.1395
Mercury	11572-01-14 14:09 G	5947658.97	5947659.09	5947659.21	0.1935	0.0405
Mercury	11580-07-24 23:16 G	5950773.33	5950773.47	5950773.61	0.1604	0.0677
Mercury	11581-06-05 20:09 G	5951089.26	5951089.34	5951089.43	0.1938	0.1356
Venus	11584-06-17 06:00 G	5952196.59	5952196.75	5952196.91	0.1643	0.0635
Venus	11589-01-27 21:36 G	5953882.24	5953882.40	5953882.56	0.1892	0.0825
Mercury	11589-12-15 03:36 G	5954203.50	5954203.65	5954203.81	0.1601	0.0057
Mercury	11592-10-02 00:43 G	5955225.46	5955225.53	5955225.61	0.1927	0.1491
Mercury	11599-05-07 08:23 G	5957633.71	5957633.85	5957633.99	0.1599	0.0712
Mercury	11602-02-22 07:40 G	5958655.71	5958655.82	5958655.93	0.1932	0.0605
Earth	11606-07-18 10:04 G	5960262.79	5960262.92	5960263.05	0.1616	0.1163
Moon	11606-07-18 15:36 G	5960262.99	5960263.15	5960263.31	0.1616	0.0910 *
Mercury	11608-09-26 13:40 G	5961063.99	5961064.07	5961064.14	0.1597	0.1367
Mercury	11610-09-02 19:26 G	5961770.25	5961770.31	5961770.37	0.1607	0.1487
Mercury	11611-07-15 14:23 G	5962085.98	5962086.10	5962086.22	0.1935	0.0313
Venus	11618-04-15 23:16 G	5964552.32	5964552.47	5964552.62	0.1633	0.0854
Mercury	11620-01-23 23:45 G	5965200.35	5965200.49	5965200.62	0.1604	0.0769
Mercury	11620-12-04 20:23 G	5965516.26	5965516.35	5965516.44	0.1938	0.1268
Mercury	11629-06-15 04:19 G	5968630.52	5968630.68	5968630.83	0.1601	0.0076
Mercury	11632-04-02 00:57 G	5969652.48	5969652.54	5969652.61	0.1928	0.1583
Mercury	11638-11-05 09:07 G	5972060.73	5972060.88	5972061.02	0.1599	0.0617
Mercury	11641-08-23 07:55 G	5973082.71	5973082.83	5973082.94	0.1931	0.0699
Earth	11647-01-19 18:14 G	5975058.08	5975058.26	5975058.44	0.1921	0.0888
Moon	11647-01-20 03:50 G	5975058.46	5975058.66	5975058.87	0.1921	0.0491
Mercury	11648-03-27 13:55 G	5975490.99	5975491.08	5975491.17	0.1597	0.1285
Mercury	11650-03-03 19:55 G	5976197.31	5976197.33	5976197.35	0.1607	0.1585

Venus	11650-04-14 17:45 G	5976239.07	5976239.24	5976239.40	0.1640	0.0455
Mercury	11651-01-13 14:09 G	5976512.97	5976513.09	5976513.21	0.1935	0.0233
Venus	11654-11-25 00:43 G	5977924.35	5977924.53	5977924.70	0.1896	0.0339
Mercury	11659-07-25 00:00 G	5979627.37	5979627.50	5979627.64	0.1604	0.0858
Mercury	11660-06-04 20:38 G	5979943.26	5979943.36	5979943.46	0.1938	0.1163
Mercury	11668-12-14 04:33 G	5983057.54	5983057.69	5983057.85	0.1602	0.0163
Mercury	11671-10-02 01:11 G	5984079.49	5984079.55	5984079.61	0.1927	0.1677
Mercury	11678-05-06 09:21 G	5986487.75	5986487.89	5986488.04	0.1599	0.0529
Mercury	11681-02-21 07:55 G	5987509.72	5987509.83	5987509.94	0.1931	0.0780
Venus	11684-02-11 11:02 G	5988594.83	5988594.96	5988595.09	0.1631	0.1030
Earth	11685-07-20 10:48 G	5989119.76	5989119.95	5989120.13	0.1614	0.0039
Moon	11685-07-20 15:07 G	5989119.95	5989120.13	5989120.31	0.1613	0.0153 *
Mercury	11687-09-26 14:23 G	5989918.00	5989918.10	5989918.20	0.1597	0.1193
Mercury	11690-07-14 14:23 G	5990939.98	5990940.10	5990940.22	0.1935	0.0134
Mercury	11699-01-23 00:43 G	5994054.40	5994054.53	5994054.65	0.1604	0.0957
Mercury	11699-12-04 20:38 G	5994370.26	5994370.36	5994370.46	0.1938	0.1085
Mercury	11708-06-15 05:02 G	5997484.56	5997484.71	5997484.87	0.1601	0.0250
Mercury	11711-04-03 00:57 G	5998506.50	5998506.54	5998506.59	0.1927	0.1754
Venus	11716-02-11 05:31 G	6000281.56	6000281.73	6000281.90	0.1638	0.0277
Mercury	11717-11-05 09:50 G	6000914.76	6000914.91	6000915.06	0.1599	0.0444
Mercury	11720-08-23 07:55 G	6001936.73	6001936.83	6001936.94	0.1932	0.0876
Venus	11720-09-22 03:50 G	6001966.49	6001966.66	6001966.84	0.1900	0.0158
Mercury	11727-03-28 14:52 G	6004345.01	6004345.12	6004345.23	0.1597	0.1106
Mercury	11730-01-13 14:38 G	6005366.99	6005367.11	6005367.23	0.1935	0.0062
Mercury	11738-07-25 01:11 G	6008481.43	6008481.55	6008481.67	0.1604	0.1053
Mercury	11739-06-05 20:38 G	6008797.26	6008797.36	6008797.47	0.1938	0.0990
Mercury	11747-12-15 05:31 G	6011911.58	6011911.73	6011911.89	0.1602	0.0343
Venus	11748-02-10 00:14 G	6011968.48	6011968.51	6011968.55	0.1646	0.1614
Venus	11749-12-09 23:02 G	6012637.34	6012637.46	6012637.58	0.1629	0.1197
Mercury	11750-10-02 01:11 G	6012933.52	6012933.55	6012933.58	0.1927	0.1846

Mercury	11757-05-06 10:19 G	6015341.78	6015341.93	6015342.08	0.1599	0.0349
Mercury	11760-02-22 07:55 G	6016363.73	6016363.83	6016363.94	0.1931	0.0961
Moon	11764-07-23 08:09 G	6017976.73	6017976.84	6017976.96	0.1611	0.1210
Earth	11764-07-23 10:33 G	6017976.81	6017976.94	6017977.08	0.1611	0.1092 *
Mercury	11766-09-26 15:21 G	6018772.02	6018772.14	6018772.25	0.1597	0.1022
Mercury	11769-07-14 14:38 G	6019793.99	6019794.11	6019794.23	0.1935	0.0064
Mercury	11778-01-23 01:26 G	6022908.45	6022908.56	6022908.67	0.1604	0.1139
Mercury	11778-12-04 20:52 G	6023224.26	6023224.37	6023224.48	0.1938	0.0893
Venus	11781-12-08 17:02 G	6024324.04	6024324.21	6024324.39	0.1636	0.0099
Venus	11786-07-20 06:43 G	6026008.62	6026008.78	6026008.95	0.1903	0.0661
Mercury	11787-06-15 06:00 G	6026338.60	6026338.75	6026338.90	0.1602	0.0434
Mercury	11788-04-26 02:52 G	6026654.59	6026654.62	6026654.65	0.1940	0.1865
Mercury	11796-11-04 10:48 G	6029768.80	6029768.95	6029769.10	0.1599	0.0257
Mercury	11799-08-23 08:09 G	6030790.74	6030790.84	6030790.94	0.1931	0.1048
Mercury	11806-03-28 15:50 G	6033199.03	6033199.16	6033199.28	0.1597	0.0929
Mercury	11809-01-13 14:38 G	6034220.99	6034221.11	6034221.23	0.1935	0.0148
Venus	11813-12-08 11:31 G	6036010.89	6036010.98	6036011.06	0.1644	0.1420
Mercury	11815-08-18 20:52 G	6036629.36	6036629.37	6036629.39	0.1595	0.1585
Venus	11815-10-08 11:02 G	6036679.87	6036679.96	6036680.05	0.1626	0.1366
Mercury	11817-07-25 02:09 G	6037335.49	6037335.59	6037335.69	0.1604	0.1241
Mercury	11818-06-05 20:52 G	6037651.26	6037651.37	6037651.48	0.1938	0.0809
Mercury	11826-12-15 06:28 G	6040765.62	6040765.77	6040765.92	0.1601	0.0525
Mercury	11827-10-27 03:07 G	6041081.58	6041081.63	6041081.67	0.1941	0.1778
Mercury	11836-05-06 11:02 G	6044195.81	6044195.96	6044196.12	0.1599	0.0173
Mercury	11839-02-22 08:09 G	6045217.75	6045217.84	6045217.94	0.1931	0.1141
Mercury	11845-09-26 16:04 G	6047626.04	6047626.17	6047626.30	0.1597	0.0842
Venus	11847-10-07 04:48 G	6048366.53	6048366.70	6048366.88	0.1634	0.0089
Mercury	11848-07-14 14:52 G	6048648.00	6048648.12	6048648.24	0.1935	0.0233
Venus	11852-05-17 09:21 G	6050050.75	6050050.89	6050051.03	0.1907	0.1180
Mercury	11855-02-16 21:21 G	6051056.34	6051056.39	6051056.44	0.1595	0.1498

Mercury	11857-01-23 02:38 G	6051762.52	6051762.61	6051762.69	0.1604	0.1335
Mercury	11857-12-04 21:07 G	6052078.26	6052078.38	6052078.49	0.1938	0.0718
Mercury	11866-06-15 06:57 G	6055192.65	6055192.79	6055192.94	0.1602	0.0622
Mercury	11867-04-27 03:07 G	6055508.58	6055508.63	6055508.69	0.1940	0.1679
Mercury	11875-11-05 11:31 G	6058622.83	6058622.98	6058623.14	0.1599	0.0087
Mercury	11878-08-23 08:23 G	6059644.76	6059644.85	6059644.94	0.1931	0.1228
Venus	11879-10-05 23:16 G	6060053.36	6060053.47	6060053.59	0.1641	0.1243
Venus	11881-08-04 23:31 G	6060722.42	6060722.48	6060722.53	0.1625	0.1529
Venus	11884-05-17 09:21 G	6061738.78	6061738.89	6061739.00	0.1895	0.1470
Mercury	11885-03-27 16:33 G	6062053.05	6062053.19	6062053.32	0.1597	0.0758
Mercury	11888-01-13 14:52 G	6063075.00	6063075.12	6063075.24	0.1935	0.0314
Moon	11890-07-21 11:45 G	6063994.80	6063994.99	6063995.18	0.1619	0.0370
Earth	11890-07-21 16:19 G	6063995.01	6063995.18	6063995.36	0.1619	0.0525 *
Mercury	11894-08-17 21:50 G	6065483.34	6065483.41	6065483.48	0.1595	0.1412
Mercury	11896-07-24 02:52 G	6066189.55	6066189.62	6066189.69	0.1604	0.1427
Mercury	11897-06-04 21:21 G	6066505.27	6066505.39	6066505.51	0.1938	0.0613
Mercury	11905-12-15 07:26 G	6069619.67	6069619.81	6069619.95	0.1602	0.0713
Mercury	11906-10-27 03:21 G	6069935.57	6069935.64	6069935.71	0.1940	0.1591
Venus	11913-08-04 17:02 G	6072409.03	6072409.21	6072409.38	0.1631	0.0256
Mercury	11915-05-07 12:00 G	6073049.85	6073050.00	6073050.16	0.1599	0.0026
Mercury	11918-02-22 08:23 G	6074071.76	6074071.85	6074071.93	0.1931	0.1311
Venus	11918-03-15 11:45 G	6074092.91	6074092.99	6074093.06	0.1910	0.1716
Mercury	11924-09-26 17:02 G	6076480.07	6076480.21	6076480.35	0.1597	0.0662
Mercury	11927-07-15 15:07 G	6077502.01	6077502.13	6077502.25	0.1935	0.0414
Moon	11931-01-21 05:16 G	6078787.60	6078787.72	6078787.84	0.1914	0.1582
Earth	11931-01-21 14:38 G	6078788.02	6078788.11	6078788.20	0.1914	0.1716
Mercury	11934-02-16 22:19 G	6079910.34	6079910.43	6079910.51	0.1595	0.1326
Mercury	11936-01-24 03:36 G	6080616.60	6080616.65	6080616.69	0.1604	0.1527
Mercury	11936-12-04 21:21 G	6080932.27	6080932.39	6080932.50	0.1938	0.0539
Mercury	11945-06-15 07:55 G	6084046.69	6084046.83	6084046.96	0.1602	0.0805

Venus	11945-08-03 10:48 G	6084095.82	6084095.95	6084096.09	0.1639	0.1058
Mercury	11946-04-27 03:21 G	6084362.57	6084362.64	6084362.72	0.1941	0.1496
Venus	11950-03-15 12:00 G	6085780.85	6085781.00	6085781.15	0.1898	0.0968
Mercury	11954-11-05 12:28 G	6087476.86	6087477.02	6087477.17	0.1599	0.0104
Mercury	11957-08-23 08:38 G	6088498.78	6088498.86	6088498.94	0.1931	0.1411
Mercury	11964-03-27 17:31 G	6090907.08	6090907.23	6090907.37	0.1597	0.0573
Mercury	11967-01-13 15:07 G	6091929.01	6091929.13	6091929.25	0.1934	0.0500
Earth	11969-07-24 17:02 G	6092852.04	6092852.21	6092852.38	0.1616	0.0622
Moon	11969-07-24 19:26 G	6092852.12	6092852.31	6092852.50	0.1616	0.0496 *
Mercury	11973-08-17 22:33 G	6094337.35	6094337.44	6094337.54	0.1595	0.1236
Mercury	11976-06-04 21:36 G	6095359.28	6095359.40	6095359.51	0.1938	0.0443
Venus	11979-06-02 04:19 G	6096451.51	6096451.68	6096451.85	0.1629	0.0439
Mercury	11984-12-14 08:23 G	6098473.72	6098473.85	6098473.98	0.1602	0.0901
Mercury	11985-10-26 03:36 G	6098789.56	6098789.65	6098789.73	0.1940	0.1404
Mercury	11994-05-06 12:57 G	6101903.89	6101904.04	6101904.19	0.1599	0.0199
Mercury	11997-02-21 08:38 G	6102925.78	6102925.86	6102925.93	0.1931	0.1492

13TH MILLENNIUM CE

This is a list of transits visible from Mars in the 13th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	12003-09-26 17:45 G	6105334.10	6105334.24	6105334.39	0.1597	0.0488		
Mercury	12006-07-14 15:07 G	6106356.02	6106356.13	6106356.25	0.1935	0.0590		
Earth	12010-01-25 10:04 G	6107646.84	6107646.92	6107646.99	0.1920	0.1785		

Moon	12010-01-25 14:09 G	6107646.96	6107647.09	6107647.23	0.1920	0.1534 *
Venus	12011-05-31 22:33 G	6108138.29	6108138.44	6108138.59	0.1636	0.0878
Mercury	12013-02-15 23:02 G	6108764.35	6108764.46	6108764.56	0.1595	0.1151
Mercury	12015-12-04 21:36 G	6109786.28	6109786.40	6109786.52	0.1938	0.0343
Venus	12016-01-10 15:50 G	6109822.99	6109823.16	6109823.33	0.1902	0.0489
Mercury	12024-06-14 08:52 G	6112900.75	6112900.87	6112900.99	0.1602	0.0997
Mercury	12025-04-26 03:50 G	6113216.57	6113216.66	6113216.74	0.1940	0.1311
Mercury	12033-11-04 13:26 G	6116330.91	6116331.06	6116331.21	0.1599	0.0293
Mercury	12036-08-22 08:38 G	6117352.80	6117352.86	6117352.93	0.1931	0.1584
Mercury	12043-03-27 18:14 G	6119761.11	6119761.26	6119761.41	0.1597	0.0395
Venus	12045-03-29 16:48 G	6120494.04	6120494.20	6120494.36	0.1627	0.0601
Mercury	12046-01-12 15:21 G	6120783.03	6120783.14	6120783.25	0.1935	0.0682
Mercury	12052-08-16 23:31 G	6123191.36	6123191.48	6123191.59	0.1595	0.1061
Mercury	12055-06-04 21:36 G	6124213.28	6124213.40	6124213.52	0.1938	0.0263
Mercury	12063-12-14 09:21 G	6127327.77	6127327.89	6127328.00	0.1602	0.1089
Mercury	12064-10-25 03:50 G	6127643.56	6127643.66	6127643.75	0.1941	0.1217
Mercury	12073-05-05 13:40 G	6130757.92	6130758.07	6130758.23	0.1599	0.0382
Mercury	12076-02-21 08:52 G	6131779.81	6131779.87	6131779.92	0.1931	0.1677
Venus	12077-03-28 10:33 G	6132180.78	6132180.94	6132181.10	0.1634	0.0701
Venus	12081-11-06 18:28 G	6133865.09	6133865.27	6133865.44	0.1905	0.0029
Mercury	12082-09-25 18:43 G	6134188.13	6134188.28	6134188.44	0.1597	0.0304
Mercury	12085-07-13 15:36 G	6135210.04	6135210.15	6135210.26	0.1934	0.0779
Mercury	12092-02-16 00:00 G	6137618.38	6137618.50	6137618.62	0.1595	0.0971
Mercury	12094-12-03 21:50 G	6138640.29	6138640.41	6138640.53	0.1938	0.0163
Earth	12095-07-21 21:36 G	6138870.26	6138870.40	6138870.55	0.1624	0.1038
Moon	12095-07-22 02:09 G	6138870.47	6138870.59	6138870.71	0.1624	0.1191 *
Mercury	12103-06-15 09:50 G	6141754.81	6141754.91	6141755.01	0.1602	0.1187
Mercury	12104-04-26 04:04 G	6142070.57	6142070.67	6142070.77	0.1940	0.1122
Venus	12111-01-26 04:33 G	6144536.54	6144536.69	6144536.84	0.1625	0.0775
Mercury	12112-11-04 14:23 G	6145184.95	6145185.10	6145185.25	0.1599	0.0478

Mercury	12115-08-23 08:52 G	6146206.82	6146206.87	6146206.92	0.1931	0.1763
Mercury	12122-03-27 19:11 G	6148615.14	6148615.30	6148615.45	0.1597	0.0216
Mercury	12125-01-12 15:21 G	6149637.04	6149637.14	6149637.25	0.1935	0.0862
Mercury	12131-08-18 00:14 G	6152045.39	6152045.51	6152045.64	0.1595	0.0883
Mercury	12134-06-04 22:04 G	6153067.30	6153067.42	6153067.54	0.1938	0.0059
Mercury	12141-01-07 05:45 G	6155475.70	6155475.74	6155475.77	0.1594	0.1537
Mercury	12142-12-14 10:19 G	6156181.84	6156181.93	6156182.02	0.1602	0.1282
Venus	12143-01-24 22:19 G	6156223.27	6156223.43	6156223.60	0.1632	0.0529
Mercury	12143-10-26 04:04 G	6156497.57	6156497.67	6156497.77	0.1940	0.1032
Venus	12147-09-04 21:36 G	6157907.23	6157907.40	6157907.56	0.1909	0.0540
Mercury	12152-05-05 14:52 G	6159611.97	6159612.12	6159612.26	0.1599	0.0571
Mercury	12155-02-21 08:52 G	6160633.84	6160633.87	6160633.90	0.1931	0.1850
Mercury	12161-09-25 19:40 G	6163042.17	6163042.32	6163042.48	0.1597	0.0119
Mercury	12164-07-13 15:36 G	6164064.05	6164064.15	6164064.26	0.1934	0.0962
Mercury	12171-02-16 00:43 G	6166472.40	6166472.53	6166472.66	0.1595	0.0795
Mercury	12173-12-03 22:04 G	6167494.30	6167494.42	6167494.54	0.1938	0.0048
Moon	12174-07-24 19:40 G	6167727.15	6167727.32	6167727.49	0.1622	0.0261
Earth	12174-07-24 22:33 G	6167727.26	6167727.44	6167727.63	0.1622	0.0133 *
Venus	12176-11-22 16:48 G	6168579.06	6168579.20	6168579.34	0.1623	0.0936
Mercury	12180-07-08 06:00 G	6169902.69	6169902.75	6169902.81	0.1594	0.1452
Mercury	12182-06-14 10:48 G	6170608.87	6170608.95	6170609.02	0.1602	0.1375
Mercury	12183-04-26 04:19 G	6170924.57	6170924.68	6170924.78	0.1941	0.0934
Mercury	12191-11-04 15:07 G	6174038.99	6174039.13	6174039.28	0.1599	0.0666
Mercury	12192-09-15 10:04 G	6174354.91	6174354.92	6174354.94	0.1943	0.1918
Mercury	12201-03-27 20:09 G	6177469.18	6177469.34	6177469.49	0.1597	0.0027
Mercury	12204-01-13 15:50 G	6178491.06	6178491.16	6178491.26	0.1934	0.1047
Venus	12208-11-22 10:19 G	6180265.76	6180265.93	6180266.10	0.1630	0.0356
Mercury	12210-08-18 01:11 G	6180899.41	6180899.55	6180899.69	0.1595	0.0701
Mercury	12213-06-04 22:19 G	6181921.31	6181921.43	6181921.55	0.1938	0.0134
Venus	12213-07-03 00:00 G	6181949.35	6181949.50	6181949.64	0.1912	0.1068

Mercury	12220-01-08 06:28 G	6184329.69	6184329.77	6184329.85	0.1594	0.1360
Mercury	12221-12-14 11:16 G	6185035.91	6185035.97	6185036.03	0.1602	0.1476
Mercury	12222-10-26 04:19 G	6185351.57	6185351.68	6185351.79	0.1940	0.0842
Mercury	12231-05-06 15:50 G	6188466.02	6188466.16	6188466.29	0.1599	0.0761
Mercury	12232-03-17 10:04 G	6188781.88	6188781.92	6188781.96	0.1943	0.1835
Mercury	12240-09-25 20:23 G	6191896.20	6191896.35	6191896.51	0.1597	0.0077
Venus	12242-09-21 05:02 G	6192621.58	6192621.71	6192621.84	0.1621	0.1100
Mercury	12243-07-14 15:50 G	6192918.06	6192918.16	6192918.26	0.1935	0.1138
Venus	12245-07-03 00:14 G	6193637.42	6193637.51	6193637.60	0.1901	0.1631
Mercury	12250-02-16 01:40 G	6195326.43	6195326.57	6195326.71	0.1595	0.0614
Mercury	12252-12-03 22:19 G	6196348.31	6196348.43	6196348.55	0.1938	0.0226
Moon	12253-07-27 17:16 G	6196584.08	6196584.22	6196584.36	0.1619	0.1088
Earth	12253-07-27 23:45 G	6196584.38	6196584.49	6196584.60	0.1619	0.1282
Mercury	12259-07-09 06:57 G	6198756.70	6198756.79	6198756.88	0.1594	0.1270
Mercury	12261-06-14 11:45 G	6199462.96	6199462.99	6199463.02	0.1602	0.1573
Mercury	12262-04-26 04:33 G	6199778.58	6199778.69	6199778.80	0.1940	0.0747
Mercury	12270-11-04 16:19 G	6202893.05	6202893.18	6202893.31	0.1599	0.0857
Mercury	12271-09-16 10:19 G	6203208.88	6203208.93	6203208.99	0.1943	0.1730
Venus	12274-09-19 22:19 G	6204308.26	6204308.43	6204308.61	0.1628	0.0185
Venus	12279-04-30 02:09 G	6205991.50	6205991.59	6205991.69	0.1916	0.1613
Mercury	12280-03-26 21:07 G	6206323.22	6206323.38	6206323.53	0.1597	0.0161
Mercury	12283-01-12 16:04 G	6207345.07	6207345.17	6207345.26	0.1934	0.1232
Mercury	12289-08-17 02:09 G	6209753.44	6209753.59	6209753.73	0.1595	0.0522
Mercury	12292-06-03 22:33 G	6210775.32	6210775.44	6210775.55	0.1938	0.0311
Moon	12294-01-25 22:48 G	6211376.26	6211376.45	6211376.64	0.1913	0.0459
Earth	12294-01-26 07:55 G	6211376.66	6211376.83	6211377.01	0.1913	0.0991
Mercury	12299-01-07 07:11 G	6213183.70	6213183.80	6213183.91	0.1594	0.1188
Moon	12300-07-22 22:33 G	6213745.35	6213745.44	6213745.54	0.1631	0.1422
Earth	12300-07-23 02:09 G	6213745.55	6213745.59	6213745.63	0.1631	0.1589
Mercury	12301-10-26 04:33 G	6214205.58	6214205.69	6214205.81	0.1941	0.0653

Venus	12306-09-19 16:19 G	6215995.12	6215995.18	6215995.25	0.1635	0.1500
Venus	12308-07-19 17:31 G	6216664.12	6216664.23	6216664.34	0.1619	0.1262
Mercury	12310-05-06 16:33 G	6217320.07	6217320.19	6217320.32	0.1600	0.0947
Mercury	12311-03-18 10:33 G	6217635.88	6217635.94	6217636.00	0.1943	0.1634
Venus	12311-05-01 03:36 G	6217679.51	6217679.65	6217679.79	0.1904	0.1139
Mercury	12319-09-26 21:36 G	6220750.24	6220750.40	6220750.55	0.1597	0.0255
Mercury	12322-07-14 16:04 G	6221772.09	6221772.17	6221772.26	0.1934	0.1327
Mercury	12329-02-16 02:38 G	6224180.46	6224180.61	6224180.76	0.1595	0.0429
Mercury	12331-12-04 22:33 G	6225202.32	6225202.44	6225202.56	0.1938	0.0399
Mercury	12338-07-09 07:55 G	6227610.72	6227610.83	6227610.94	0.1594	0.1092
Venus	12340-07-18 10:33 G	6228350.77	6228350.94	6228351.12	0.1626	0.0043
Mercury	12341-04-26 04:48 G	6228632.58	6228632.70	6228632.82	0.1940	0.0556
Mercury	12349-11-04 17:16 G	6231747.10	6231747.22	6231747.33	0.1599	0.1048
Mercury	12350-09-16 10:33 G	6232062.87	6232062.94	6232063.02	0.1943	0.1546
Mercury	12359-03-27 21:50 G	6235177.26	6235177.41	6235177.56	0.1597	0.0344
Mercury	12362-01-12 16:04 G	6236199.09	6236199.17	6236199.25	0.1935	0.1413
Mercury	12368-08-17 02:52 G	6238607.47	6238607.62	6238607.78	0.1595	0.0340
Mercury	12371-06-04 22:48 G	6239629.34	6239629.45	6239629.57	0.1938	0.0503
Venus	12372-07-17 04:04 G	6240037.57	6240037.67	6240037.77	0.1632	0.1318
Venus	12374-05-17 05:31 G	6240706.66	6240706.73	6240706.81	0.1617	0.1428
Venus	12377-02-25 06:14 G	6241721.59	6241721.76	6241721.93	0.1908	0.0623
Mercury	12378-01-07 08:09 G	6242037.73	6242037.84	6242037.96	0.1594	0.1005
Earth	12379-07-26 03:50 G	6242602.48	6242602.66	6242602.85	0.1628	0.0391
Moon	12379-07-26 08:09 G	6242602.65	6242602.84	6242603.02	0.1628	0.0548 *
Mercury	12380-10-25 04:48 G	6243059.58	6243059.70	6243059.82	0.1940	0.0467
Mercury	12389-05-05 17:45 G	6246174.13	6246174.24	6246174.35	0.1600	0.1143
Mercury	12390-03-17 10:48 G	6246489.87	6246489.95	6246490.03	0.1943	0.1443
Mercury	12398-09-25 22:33 G	6249604.29	6249604.44	6249604.59	0.1597	0.0443
Mercury	12401-07-13 16:19 G	6250626.11	6250626.18	6250626.26	0.1934	0.1513
Venus	12406-05-15 22:19 G	6252393.26	6252393.43	6252393.60	0.1623	0.0167

Mercury	12408-02-16 03:21 G	6253034.49	6253034.64	6253034.79	0.1595	0.0248
Mercury	12410-12-03 22:48 G	6254056.33	6254056.45	6254056.56	0.1938	0.0580
Mercury	12417-07-08 08:38 G	6256464.74	6256464.86	6256464.99	0.1594	0.0916
Mercury	12420-04-25 05:02 G	6257486.59	6257486.71	6257486.83	0.1941	0.0366
Mercury	12426-11-28 14:09 G	6259895.07	6259895.09	6259895.12	0.1592	0.1563
Mercury	12428-11-03 18:14 G	6260601.16	6260601.26	6260601.35	0.1600	0.1239
Mercury	12429-09-15 11:02 G	6260916.87	6260916.96	6260917.05	0.1943	0.1344
Mercury	12438-03-26 22:48 G	6264031.31	6264031.45	6264031.60	0.1597	0.0538
Venus	12438-05-14 16:04 G	6264080.05	6264080.17	6264080.29	0.1630	0.1146
Venus	12440-03-13 18:14 G	6264749.23	6264749.26	6264749.29	0.1616	0.1588
Mercury	12441-01-11 16:19 G	6265053.12	6265053.18	6265053.25	0.1934	0.1599
Venus	12442-12-23 09:36 G	6265763.73	6265763.90	6265764.08	0.1911	0.0126
Mercury	12447-08-17 03:50 G	6267461.51	6267461.66	6267461.82	0.1595	0.0156
Mercury	12450-06-03 23:02 G	6268483.35	6268483.46	6268483.57	0.1938	0.0686
Mercury	12457-01-06 09:07 G	6270891.75	6270891.88	6270892.01	0.1594	0.0822
Earth	12458-07-28 05:31 G	6271459.57	6271459.73	6271459.90	0.1625	0.0803
Moon	12458-07-28 12:00 G	6271459.86	6271460.00	6271460.15	0.1625	0.1008 *
Mercury	12459-10-25 05:16 G	6271913.60	6271913.72	6271913.84	0.1940	0.0279
Mercury	12466-05-29 14:38 G	6274322.05	6274322.11	6274322.16	0.1592	0.1479
Mercury	12468-05-04 18:43 G	6275028.19	6275028.28	6275028.36	0.1599	0.1336
Mercury	12469-03-16 11:02 G	6275343.87	6275343.96	6275344.05	0.1943	0.1258
Venus	12472-03-12 11:02 G	6276435.79	6276435.96	6276436.13	0.1622	0.0325
Mercury	12477-09-24 23:16 G	6278458.33	6278458.47	6278458.61	0.1597	0.0626
Mercury	12480-07-12 16:33 G	6279480.14	6279480.19	6279480.25	0.1935	0.1695
Mercury	12487-02-15 04:19 G	6281888.53	6281888.68	6281888.84	0.1596	0.0062
Mercury	12489-12-02 23:16 G	6282910.36	6282910.47	6282910.58	0.1938	0.0782
Mercury	12496-07-07 09:36 G	6285318.77	6285318.90	6285319.04	0.1594	0.0731
Mercury	12499-04-25 05:16 G	6286340.60	6286340.72	6286340.84	0.1940	0.0180
Venus	12504-03-12 04:19 G	6288122.54	6288122.68	6288122.82	0.1628	0.0974
Mercury	12505-11-28 15:07 G	6288749.06	6288749.13	6288749.20	0.1592	0.1386

Mercury	12507-11-04 19:11 G	6289455.23	6289455.30	6289455.37	0.1600	0.1435
Mercury	12508-09-15 11:16 G	6289770.88	6289770.97	6289771.07	0.1943	0.1152
Venus	12508-10-20 12:00 G	6289805.83	6289806.00	6289806.18	0.1914	0.0412
Mercury	12517-03-27 00:00 G	6292885.36	6292885.50	6292885.63	0.1597	0.0728
Mercury	12520-01-12 16:48 G	6293907.15	6293907.20	6293907.24	0.1934	0.1788
Mercury	12526-08-17 04:48 G	6296315.55	6296315.70	6296315.85	0.1595	0.0033
Mercury	12529-06-03 23:16 G	6297337.36	6297337.47	6297337.58	0.1938	0.0868
Mercury	12536-01-07 09:50 G	6299745.78	6299745.91	6299746.06	0.1594	0.0647
Venus	12538-01-08 23:02 G	6300478.29	6300478.46	6300478.62	0.1620	0.0495
Mercury	12538-10-25 05:31 G	6300767.61	6300767.73	6300767.85	0.1941	0.0077
Mercury	12545-05-29 15:36 G	6303176.06	6303176.15	6303176.23	0.1592	0.1297
Mercury	12547-05-05 19:40 G	6303882.28	6303882.32	6303882.36	0.1600	0.1530
Mercury	12548-03-16 11:31 G	6304197.88	6304197.98	6304198.08	0.1943	0.1056
Mercury	12556-09-25 00:28 G	6307312.38	6307312.52	6307312.65	0.1597	0.0824
Mercury	12559-07-13 16:48 G	6308334.18	6308334.20	6308334.23	0.1934	0.1881
Mercury	12566-02-15 05:16 G	6310742.57	6310742.72	6310742.87	0.1595	0.0129
Mercury	12568-12-02 23:16 G	6311764.37	6311764.47	6311764.58	0.1938	0.0969
Venus	12570-01-07 16:33 G	6312165.04	6312165.19	6312165.34	0.1626	0.0805
Venus	12574-08-17 14:52 G	6313847.97	6313848.12	6313848.28	0.1918	0.0939
Mercury	12575-07-08 10:33 G	6314172.79	6314172.94	6314173.08	0.1594	0.0547
Earth	12578-01-27 08:23 G	6315106.64	6315106.85	6315107.05	0.1906	0.0300
Moon	12578-01-27 17:45 G	6315107.04	6315107.24	6315107.43	0.1906	0.0363 *
Mercury	12578-04-25 05:45 G	6315194.61	6315194.74	6315194.86	0.1940	0.0077
Moon	12584-07-25 05:02 G	6317477.55	6317477.71	6317477.86	0.1634	0.0783
Earth	12584-07-25 08:09 G	6317477.69	6317477.84	6317478.00	0.1634	0.0938 *
Mercury	12584-11-27 15:50 G	6317603.06	6317603.16	6317603.26	0.1592	0.1211
Mercury	12587-09-15 11:31 G	6318624.88	6318624.98	6318625.09	0.1943	0.0965
Mercury	12596-03-26 00:43 G	6321739.40	6321739.53	6321739.66	0.1597	0.0913
Venus	12603-11-07 11:45 G	6324520.83	6324520.99	6324521.15	0.1618	0.0652
Mercury	12605-08-17 05:45 G	6325169.59	6325169.74	6325169.89	0.1596	0.0223

Venus	12606-08-18 15:50 G	6325536.12	6325536.16	6325536.21	0.1907	0.1824
Mercury	12608-06-03 23:31 G	6326191.38	6326191.48	6326191.58	0.1937	0.1070
Mercury	12615-01-07 11:02 G	6328599.81	6328599.96	6328600.10	0.1594	0.0457
Mercury	12617-10-25 05:45 G	6329621.62	6329621.74	6329621.86	0.1940	0.0111
Mercury	12624-05-29 16:19 G	6332030.08	6332030.18	6332030.29	0.1592	0.1116
Mercury	12627-03-17 11:45 G	6333051.88	6333051.99	6333052.10	0.1943	0.0862
Mercury	12635-09-26 01:26 G	6336166.44	6336166.56	6336166.68	0.1597	0.1017
Venus	12635-11-06 04:48 G	6336207.54	6336207.70	6336207.86	0.1624	0.0636
Mercury	12636-08-06 17:31 G	6336482.20	6336482.23	6336482.26	0.1945	0.1871
Venus	12640-06-14 17:16 G	6337890.11	6337890.22	6337890.33	0.1921	0.1489
Mercury	12645-02-15 06:14 G	6339596.60	6339596.76	6339596.91	0.1595	0.0315
Mercury	12647-12-03 23:31 G	6340618.39	6340618.48	6340618.58	0.1938	0.1149
Mercury	12654-07-08 11:16 G	6343026.82	6343026.97	6343027.12	0.1594	0.0368
Mercury	12657-04-25 06:00 G	6344048.63	6344048.75	6344048.87	0.1941	0.0216
Moon	12663-07-29 04:19 G	6346334.49	6346334.68	6346334.87	0.1631	0.0067
Earth	12663-07-29 10:19 G	6346334.75	6346334.93	6346335.12	0.1631	0.0279 *
Mercury	12663-11-28 16:48 G	6346457.08	6346457.20	6346457.32	0.1592	0.1027
Mercury	12666-09-15 12:00 G	6347478.89	6347479.00	6347479.11	0.1943	0.0763
Venus	12669-09-04 00:00 G	6348563.35	6348563.50	6348563.65	0.1616	0.0813
Venus	12672-06-14 18:43 G	6349578.15	6349578.28	6349578.41	0.1910	0.1309
Mercury	12675-03-27 01:40 G	6350593.47	6350593.57	6350593.69	0.1598	0.1113
Mercury	12676-02-05 17:45 G	6350909.19	6350909.24	6350909.28	0.1945	0.1772
Mercury	12684-08-16 06:43 G	6354023.63	6354023.78	6354023.93	0.1596	0.0415
Mercury	12687-06-03 23:45 G	6355045.40	6355045.49	6355045.58	0.1938	0.1256
Mercury	12694-01-06 11:45 G	6357453.84	6357453.99	6357454.15	0.1594	0.0274
Mercury	12696-10-24 06:00 G	6358475.63	6358475.75	6358475.87	0.1940	0.0304
Venus	12701-09-03 17:02 G	6360250.04	6360250.21	6360250.38	0.1622	0.0467
Mercury	12703-05-30 17:02 G	6360884.09	6360884.21	6360884.34	0.1592	0.0942
Mercury	12706-03-17 12:00 G	6361905.89	6361906.00	6361906.12	0.1943	0.0674
Mercury	12712-10-19 22:48 G	6364314.44	6364314.45	6364314.46	0.1591	0.1585

Mercury	12714-09-26 02:09 G	6365020.49	6365020.59	6365020.69	0.1598	0.1206
Mercury	12715-08-07 18:00 G	6365336.19	6365336.25	6365336.31	0.1945	0.1660
Mercury	12724-02-16 07:11 G	6368450.65	6368450.80	6368450.95	0.1596	0.0508
Mercury	12726-12-04 00:00 G	6369472.41	6369472.50	6369472.58	0.1937	0.1348
Mercury	12733-07-08 12:14 G	6371880.86	6371881.01	6371881.17	0.1594	0.0181
Venus	12735-07-03 12:43 G	6372605.89	6372606.03	6372606.17	0.1614	0.0972
Mercury	12736-04-25 06:14 G	6372902.64	6372902.76	6372902.88	0.1940	0.0401
Venus	12738-04-12 21:50 G	6373620.25	6373620.41	6373620.56	0.1913	0.0793
Earth	12742-08-01 12:28 G	6375191.95	6375192.02	6375192.10	0.1628	0.1485
Moon	12742-08-01 12:28 G	6375191.99	6375192.02	6375192.06	0.1628	0.1601 *
Mercury	12742-11-28 17:45 G	6375311.11	6375311.24	6375311.37	0.1592	0.0845
Mercury	12745-09-15 12:28 G	6376332.90	6376333.02	6376333.13	0.1943	0.0570
Mercury	12752-04-19 23:16 G	6378741.42	6378741.47	6378741.52	0.1591	0.1497
Mercury	12754-03-27 02:52 G	6379447.53	6379447.62	6379447.71	0.1597	0.1308
Mercury	12755-02-05 18:00 G	6379763.18	6379763.25	6379763.32	0.1945	0.1579
Mercury	12763-08-17 07:40 G	6382877.67	6382877.82	6382877.96	0.1595	0.0601
Mercury	12766-06-04 00:00 G	6383899.42	6383899.50	6383899.58	0.1938	0.1436
Venus	12767-07-02 05:16 G	6384292.55	6384292.72	6384292.89	0.1620	0.0301
Mercury	12773-01-06 12:43 G	6386307.88	6386308.03	6386308.18	0.1594	0.0088
Mercury	12775-10-25 06:28 G	6387329.65	6387329.77	6387329.88	0.1941	0.0504
Mercury	12782-05-29 18:14 G	6389738.12	6389738.26	6389738.39	0.1592	0.0755
Mercury	12785-03-16 12:28 G	6390759.90	6390760.02	6390760.14	0.1943	0.0472
Earth	12789-07-26 12:00 G	6392352.93	6392353.00	6392353.08	0.1641	0.1499
Mercury	12791-10-19 23:45 G	6393168.42	6393168.49	6393168.56	0.1591	0.1405
Mercury	12793-09-25 03:21 G	6393874.57	6393874.64	6393874.71	0.1598	0.1405
Mercury	12794-08-06 18:14 G	6394190.18	6394190.26	6394190.34	0.1945	0.1470
Venus	12799-06-30 22:19 G	6395979.40	6395979.43	6395979.45	0.1627	0.1600
Venus	12801-04-30 00:57 G	6396648.42	6396648.54	6396648.67	0.1612	0.1134
Mercury	12803-02-15 08:09 G	6397304.70	6397304.84	6397304.98	0.1596	0.0699
Venus	12804-02-08 00:14 G	6397662.33	6397662.51	6397662.68	0.1916	0.0253

Mercury	12805-12-03 00:14 G	6398326.44	6398326.51	6398326.58	0.1937	0.1536
Mercury	12812-07-07 13:11 G	6400734.90	6400735.05	6400735.21	0.1594	0.0023
Mercury	12815-04-25 06:28 G	6401756.66	6401756.77	6401756.89	0.1940	0.0593
Mercury	12821-11-27 18:28 G	6404165.13	6404165.27	6404165.41	0.1592	0.0667
Mercury	12824-09-14 12:28 G	6405186.90	6405187.02	6405187.14	0.1943	0.0383
Mercury	12831-04-20 00:00 G	6407595.42	6407595.50	6407595.59	0.1591	0.1320
Mercury	12833-03-26 03:36 G	6408301.60	6408301.65	6408301.70	0.1598	0.1497
Venus	12833-04-28 17:16 G	6408335.05	6408335.22	6408335.40	0.1618	0.0131
Mercury	12834-02-04 18:28 G	6408617.18	6408617.27	6408617.36	0.1945	0.1369
Mercury	12842-08-16 08:38 G	6411731.73	6411731.86	6411731.99	0.1596	0.0796
Mercury	12845-06-03 00:28 G	6412753.46	6412753.52	6412753.58	0.1937	0.1637
Mercury	12852-01-06 13:40 G	6415161.92	6415162.07	6415162.22	0.1594	0.0104
Mercury	12854-10-24 06:28 G	6416183.66	6416183.77	6416183.89	0.1940	0.0692
Mercury	12861-05-28 18:57 G	6418592.15	6418592.29	6418592.43	0.1592	0.0570
Moon	12862-01-28 08:38 G	6418836.64	6418836.86	6418837.08	0.1898	0.0291
Earth	12862-01-28 11:16 G	6418836.77	6418836.97	6418837.17	0.1898	0.0292 *
Mercury	12864-03-15 12:43 G	6419613.91	6419614.03	6419614.15	0.1943	0.0281
Venus	12865-04-27 10:33 G	6420021.86	6420021.94	6420022.02	0.1625	0.1436
Venus	12867-02-25 13:40 G	6420690.97	6420691.07	6420691.17	0.1611	0.1293
Earth	12868-07-28 13:55 G	6421209.90	6421210.08	6421210.27	0.1638	0.0281
Moon	12868-07-28 19:55 G	6421210.15	6421210.33	6421210.51	0.1638	0.0031 *
Venus	12869-12-05 03:07 G	6421704.46	6421704.63	6421704.81	0.1920	0.0271
Mercury	12870-10-19 00:28 G	6422022.43	6422022.52	6422022.62	0.1591	0.1229
Mercury	12873-08-05 18:28 G	6423044.18	6423044.27	6423044.36	0.1945	0.1280
Mercury	12882-02-14 09:07 G	6426158.75	6426158.88	6426159.00	0.1596	0.0889
Mercury	12884-12-02 00:14 G	6427180.46	6427180.51	6427180.57	0.1937	0.1718
Mercury	12891-07-07 14:09 G	6429588.93	6429589.09	6429589.24	0.1594	0.0197
Mercury	12894-04-24 06:57 G	6430610.68	6430610.79	6430610.90	0.1941	0.0796
Venus	12899-02-24 06:00 G	6432377.58	6432377.75	6432377.93	0.1617	0.0043
Mercury	12900-11-27 19:26 G	6433019.16	6433019.31	6433019.46	0.1592	0.0479

Mercury	12903-09-15 12:57 G	6434040.92	6434041.04	6434041.16	0.1943	0.0179
Mercury	12910-04-20 00:57 G	6436449.44	6436449.54	6436449.65	0.1591	0.1137
Mercury	12913-02-04 18:43 G	6437471.18	6437471.28	6437471.38	0.1945	0.1177
Mercury	12921-08-16 09:36 G	6440585.78	6440585.90	6440586.02	0.1596	0.0990
Mercury	12924-06-03 00:28 G	6441607.49	6441607.52	6441607.56	0.1937	0.1825
Mercury	12931-01-06 14:38 G	6444015.96	6444016.11	6444016.26	0.1594	0.0293
Venus	12931-02-23 22:48 G	6444064.35	6444064.45	6444064.56	0.1623	0.1266
Venus	12932-12-24 02:09 G	6444733.52	6444733.59	6444733.67	0.1609	0.1451
Mercury	12933-10-24 06:57 G	6445037.68	6445037.79	6445037.89	0.1940	0.0880
Venus	12935-10-03 05:31 G	6445746.57	6445746.73	6445746.89	0.1922	0.0825
Mercury	12940-05-28 19:40 G	6447446.17	6447446.32	6447446.47	0.1592	0.0392
Mercury	12943-03-16 12:57 G	6448467.92	6448468.04	6448468.16	0.1943	0.0095
Earth	12947-08-01 16:33 G	6450067.04	6450067.19	6450067.34	0.1635	0.0952
Moon	12947-08-01 17:02 G	6450067.06	6450067.21	6450067.36	0.1635	0.0835 *
Mercury	12949-10-19 01:26 G	6450876.45	6450876.56	6450876.67	0.1591	0.1047
Mercury	12952-08-05 18:57 G	6451898.19	6451898.29	6451898.40	0.1945	0.1069
Mercury	12961-02-14 10:04 G	6455012.80	6455012.92	6455013.03	0.1596	0.1084
Mercury	12963-12-03 00:43 G	6456034.52	6456034.53	6456034.54	0.1937	0.1915
Venus	12964-12-22 18:14 G	6456420.08	6456420.26	6456420.43	0.1615	0.0203
Mercury	12970-07-07 15:07 G	6458442.98	6458443.13	6458443.28	0.1594	0.0388
Mercury	12973-04-24 06:57 G	6459464.69	6459464.79	6459464.90	0.1940	0.0979
Mercury	12979-11-27 20:23 G	6461873.20	6461873.35	6461873.50	0.1592	0.0293
Mercury	12982-09-14 13:11 G	6462894.93	6462895.05	6462895.18	0.1943	0.0053
Mercury	12989-04-19 01:40 G	6465303.45	6465303.57	6465303.69	0.1591	0.0960
Mercury	12992-02-04 18:57 G	6466325.18	6466325.29	6466325.40	0.1945	0.0988
Venus	12996-12-21 11:02 G	6468106.84	6468106.96	6468107.09	0.1621	0.1098
Mercury	13000-08-16 10:19 G	6469439.83	6469439.93	6469440.04	0.1596	0.1179

14TH MILLENNIUM CE

This is a list of transits visible from Mars in the 14th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	13001-07-31 07:40	G	6469788.70	6469788.82	6469788.94	0.1925	0.1381	
Mercury	13010-01-06 15:21	G	6472870.00	6472870.14	6472870.29	0.1594	0.0481	
Mercury	13012-10-24 07:11	G	6473891.70	6473891.80	6473891.90	0.1940	0.1082	
Mercury	13019-05-29 20:38	G	6476300.21	6476300.36	6476300.52	0.1592	0.0205	
Mercury	13022-03-16 13:26	G	6477321.93	6477322.06	6477322.18	0.1943	0.0124	
Mercury	13028-10-19 02:09	G	6479730.47	6479730.59	6479730.72	0.1591	0.0866	
Venus	13030-10-21 06:57	G	6480462.62	6480462.79	6480462.96	0.1613	0.0356	
Mercury	13031-08-06 19:11	G	6480752.19	6480752.30	6480752.41	0.1945	0.0878	
Venus	13033-07-31 09:50	G	6481476.80	6481476.91	6481477.02	0.1916	0.1474	
Mercury	13038-03-11 07:55	G	6483160.79	6483160.83	6483160.88	0.1590	0.1514	
Mercury	13040-02-15 11:02	G	6483866.87	6483866.96	6483867.05	0.1596	0.1279	
Mercury	13040-12-27 00:43	G	6484182.51	6484182.53	6484182.56	0.1946	0.1904	
Mercury	13049-07-07 16:04	G	6487297.02	6487297.17	6487297.31	0.1594	0.0580	
Mercury	13052-04-24 07:11	G	6488318.71	6488318.80	6488318.90	0.1940	0.1169	
Mercury	13058-11-27 21:07	G	6490727.22	6490727.38	6490727.53	0.1592	0.0115	
Mercury	13061-09-14 13:26	G	6491748.94	6491749.06	6491749.18	0.1943	0.0212	
Venus	13062-10-19 23:31	G	6492149.34	6492149.48	6492149.62	0.1619	0.0930	
Mercury	13068-04-19 02:38	G	6494157.48	6494157.61	6494157.74	0.1591	0.0776	
Mercury	13071-02-04 19:26	G	6495179.20	6495179.31	6495179.42	0.1945	0.0778	
Moon	13073-07-29 10:48	G	6496084.81	6496084.95	6496085.09	0.1645	0.1106	
Earth	13073-07-29 17:16	G	6496085.06	6496085.22	6496085.38	0.1645	0.0857	*
Mercury	13077-09-09 08:23	G	6497587.79	6497587.85	6497587.92	0.1590	0.1424	

Mercury	13079-08-16 11:31 G	6498293.90	6498293.98	6498294.05	0.1596	0.1378
Mercury	13080-06-27 00:57 G	6498609.50	6498609.54	6498609.59	0.1946	0.1801
Mercury	13089-01-05 16:19 G	6501724.04	6501724.18	6501724.32	0.1594	0.0673
Mercury	13091-10-24 07:26 G	6502745.72	6502745.81	6502745.90	0.1940	0.1264
Venus	13096-08-17 19:26 G	6504505.15	6504505.31	6504505.48	0.1611	0.0517
Mercury	13098-05-28 21:36 G	6505154.25	6505154.40	6505154.55	0.1592	0.0015
Venus	13099-05-28 12:14 G	6505518.86	6505519.01	6505519.16	0.1919	0.0932
Mercury	13101-03-16 13:40 G	6506175.95	6506176.07	6506176.19	0.1943	0.0308
Mercury	13107-10-20 03:07 G	6508584.49	6508584.63	6508584.76	0.1591	0.0686
Mercury	13110-08-06 19:26 G	6509606.20	6509606.31	6509606.43	0.1945	0.0688
Mercury	13117-03-11 08:38 G	6512014.78	6512014.86	6512014.94	0.1590	0.1340
Mercury	13119-02-15 11:45 G	6512720.93	6512720.99	6512721.05	0.1596	0.1469
Mercury	13119-12-28 01:11 G	6513036.49	6513036.55	6513036.61	0.1947	0.1700
Mercury	13128-07-07 16:48 G	6516151.07	6516151.20	6516151.34	0.1594	0.0766
Venus	13128-08-17 12:00 G	6516191.84	6516192.00	6516192.15	0.1617	0.0761
Mercury	13131-04-25 07:40 G	6517172.73	6517172.82	6517172.90	0.1940	0.1369
Mercury	13137-11-27 22:04 G	6519581.26	6519581.42	6519581.57	0.1592	0.0082
Mercury	13140-09-14 13:40 G	6520602.96	6520603.07	6520603.19	0.1943	0.0412
Moon	13146-01-30 11:45 G	6522566.82	6522566.99	6522567.17	0.1890	0.0638
Earth	13146-01-30 15:36 G	6522566.96	6522567.15	6522567.33	0.1890	0.0821 *
Mercury	13147-04-20 03:36 G	6523011.51	6523011.65	6523011.79	0.1591	0.0592
Mercury	13150-02-04 19:40 G	6524033.20	6524033.32	6524033.44	0.1945	0.0587
Earth	13152-08-01 19:26 G	6524942.12	6524942.31	6524942.49	0.1642	0.0387
Moon	13152-08-01 19:40 G	6524942.13	6524942.32	6524942.51	0.1642	0.0531 *
Mercury	13156-09-09 09:07 G	6526441.79	6526441.88	6526441.98	0.1590	0.1247
Mercury	13158-08-16 12:28 G	6527147.99	6527148.02	6527148.04	0.1596	0.1573
Mercury	13159-06-28 01:26 G	6527463.49	6527463.56	6527463.62	0.1946	0.1603
Venus	13162-06-16 07:55 G	6528547.67	6528547.83	6528547.98	0.1610	0.0680
Venus	13165-03-25 14:38 G	6529560.94	6529561.11	6529561.28	0.1922	0.0387
Mercury	13168-01-06 17:16 G	6530578.09	6530578.22	6530578.35	0.1594	0.0862

Mercury	13170-10-24 07:40 G	6531599.74	6531599.82	6531599.90	0.1940	0.1453
Mercury	13177-05-28 22:19 G	6534008.28	6534008.43	6534008.59	0.1592	0.0171
Mercury	13180-03-15 13:55 G	6535029.96	6535030.08	6535030.19	0.1943	0.0500
Mercury	13186-10-19 03:50 G	6537438.52	6537438.66	6537438.81	0.1591	0.0502
Mercury	13189-08-05 19:55 G	6538460.21	6538460.33	6538460.45	0.1945	0.0480
Venus	13194-06-15 00:00 G	6540234.34	6540234.50	6540234.66	0.1615	0.0592
Mercury	13196-03-10 09:36 G	6540868.80	6540868.90	6540869.00	0.1590	0.1158
Mercury	13198-12-27 01:26 G	6541890.48	6541890.56	6541890.64	0.1947	0.1509
Mercury	13207-07-07 17:45 G	6545005.12	6545005.24	6545005.36	0.1594	0.0961
Mercury	13210-04-24 07:40 G	6546026.75	6546026.82	6546026.89	0.1940	0.1554
Mercury	13216-11-26 23:02 G	6548435.30	6548435.46	6548435.61	0.1592	0.0273
Mercury	13219-09-14 14:09 G	6549456.97	6549457.09	6549457.20	0.1943	0.0602
Mercury	13226-04-19 04:19 G	6551865.53	6551865.68	6551865.82	0.1591	0.0413
Venus	13228-04-12 20:23 G	6552590.21	6552590.35	6552590.50	0.1608	0.0840
Mercury	13229-02-03 19:55 G	6552887.21	6552887.33	6552887.45	0.1945	0.0402
Venus	13231-01-20 16:48 G	6553603.02	6553603.20	6553603.37	0.1924	0.0184
Earth	13231-08-04 21:21 G	6553799.37	6553799.39	6553799.42	0.1638	0.1617
Moon	13231-08-05 04:04 G	6553799.61	6553799.67	6553799.73	0.1638	0.1536
Mercury	13235-09-09 09:50 G	6555295.80	6555295.91	6555296.02	0.1590	0.1072
Mercury	13238-06-27 01:40 G	6556317.49	6556317.57	6556317.66	0.1947	0.1398
Mercury	13247-01-05 18:14 G	6559432.14	6559432.26	6559432.37	0.1594	0.1055
Mercury	13249-10-23 07:55 G	6560453.77	6560453.83	6560453.89	0.1940	0.1655
Mercury	13256-05-27 23:16 G	6562862.32	6562862.47	6562862.62	0.1592	0.0361
Mercury	13259-03-15 14:09 G	6563883.97	6563884.09	6563884.20	0.1943	0.0690
Venus	13260-04-11 12:28 G	6564276.85	6564277.02	6564277.18	0.1613	0.0423
Mercury	13265-10-18 04:48 G	6566292.55	6566292.70	6566292.85	0.1591	0.0315
Mercury	13268-08-04 20:09 G	6567314.22	6567314.34	6567314.46	0.1945	0.0288
Mercury	13275-03-10 10:19 G	6569722.81	6569722.93	6569723.05	0.1590	0.0978
Mercury	13277-12-26 01:40 G	6570744.48	6570744.57	6570744.66	0.1947	0.1311
Earth	13278-07-29 17:02 G	6570960.14	6570960.21	6570960.28	0.1653	0.1524

Moon	13278-07-29 22:33 G	6570960.32	6570960.44	6570960.55	0.1653	0.1267
Mercury	13286-07-06 18:43 G	6573859.17	6573859.28	6573859.38	0.1594	0.1152
Mercury	13289-04-23 07:55 G	6574880.78	6574880.83	6574880.88	0.1940	0.1738
Venus	13294-02-08 09:07 G	6576632.74	6576632.88	6576633.01	0.1607	0.0999
Mercury	13295-11-26 23:45 G	6577289.34	6577289.49	6577289.63	0.1592	0.0452
Venus	13296-11-16 19:12 G	6577645.14	6577645.30	6577645.46	0.1927	0.0732
Mercury	13298-09-13 14:09 G	6578310.98	6578311.09	6578311.21	0.1943	0.0793
Mercury	13305-04-19 05:02 G	6580719.56	6580719.71	6580719.87	0.1591	0.0230
Mercury	13308-02-04 20:24 G	6581741.22	6581741.35	6581741.47	0.1945	0.0200
Mercury	13314-09-09 10:48 G	6584149.82	6584149.95	6584150.08	0.1590	0.0887
Mercury	13317-06-27 01:55 G	6585171.49	6585171.58	6585171.68	0.1947	0.1207
Mercury	13324-01-30 16:33 G	6587580.16	6587580.19	6587580.23	0.1589	0.1534
Mercury	13326-01-05 18:57 G	6588286.20	6588286.29	6588286.39	0.1594	0.1249
Venus	13326-02-08 00:57 G	6588319.37	6588319.54	6588319.71	0.1612	0.0262
Mercury	13328-10-23 08:09 G	6589307.80	6589307.84	6589307.87	0.1940	0.1836
Mercury	13335-05-29 00:14 G	6591716.36	6591716.51	6591716.65	0.1592	0.0551
Mercury	13338-03-15 14:24 G	6592737.99	6592738.10	6592738.21	0.1943	0.0885
Mercury	13344-10-18 05:31 G	6595146.58	6595146.73	6595146.88	0.1591	0.0134
Mercury	13347-08-05 20:24 G	6596168.22	6596168.35	6596168.47	0.1945	0.0113
Mercury	13354-03-10 11:02 G	6598576.83	6598576.96	6598577.09	0.1590	0.0801
Mercury	13356-12-26 02:09 G	6599598.49	6599598.59	6599598.69	0.1947	0.1105
Moon	13357-08-01 19:40 G	6599817.15	6599817.32	6599817.49	0.1649	0.0428
Earth	13357-08-01 20:38 G	6599817.17	6599817.36	6599817.54	0.1649	0.0232 *
Venus	13358-02-06 17:16 G	6600006.17	6600006.22	6600006.26	0.1617	0.1552
Venus	13359-12-07 21:36 G	6600675.28	6600675.40	6600675.52	0.1605	0.1158
Venus	13362-09-14 20:52 G	6601687.24	6601687.37	6601687.50	0.1930	0.1318
Mercury	13363-07-31 17:02 G	6602007.15	6602007.21	6602007.27	0.1589	0.1446
Mercury	13365-07-06 19:26 G	6602713.23	6602713.31	6602713.39	0.1594	0.1344
Mercury	13368-04-23 08:24 G	6603734.85	6603734.85	6603734.85	0.1940	0.1940
Mercury	13374-11-27 00:43 G	6606143.39	6606143.53	6606143.67	0.1592	0.0646

Mercury	13377-09-13 14:24 G	6607165.00	6607165.10	6607165.21	0.1943	0.0984
Mercury	13384-04-18 06:00 G	6609573.60	6609573.75	6609573.90	0.1591	0.0038
Mercury	13387-02-03 20:24 G	6610595.23	6610595.35	6610595.48	0.1945	0.0062
Venus	13391-12-06 13:12 G	6612361.87	6612362.05	6612362.22	0.1610	0.0095
Mercury	13393-09-08 11:31 G	6613003.85	6613003.98	6613004.12	0.1590	0.0707
Venus	13394-09-14 23:45 G	6613375.40	6613375.49	6613375.59	0.1921	0.1606
Mercury	13396-06-26 02:09 G	6614025.49	6614025.59	6614025.70	0.1947	0.1012
Mercury	13403-01-30 17:16 G	6616434.15	6616434.22	6616434.30	0.1589	0.1362
Mercury	13405-01-05 19:55 G	6617140.27	6617140.33	6617140.39	0.1594	0.1441
Mercury	13414-05-29 00:57 G	6620570.40	6620570.54	6620570.68	0.1592	0.0735
Mercury	13417-03-15 14:38 G	6621592.01	6621592.11	6621592.21	0.1943	0.1078
Mercury	13423-10-19 06:28 G	6624000.61	6624000.77	6624000.92	0.1591	0.0065
Venus	13423-12-06 05:45 G	6624048.65	6624048.74	6624048.82	0.1616	0.1387
Venus	13425-10-05 10:04 G	6624717.83	6624717.92	6624718.02	0.1604	0.1322
Mercury	13426-08-05 20:38 G	6625022.24	6625022.36	6625022.49	0.1945	0.0119
Venus	13428-07-12 22:33 G	6625729.42	6625729.44	6625729.47	0.1932	0.1903
Earth	13430-01-31 20:09 G	6626297.19	6626297.34	6626297.48	0.1882	0.1324
Moon	13430-02-01 06:00 G	6626297.56	6626297.75	6626297.93	0.1882	0.0774
Mercury	13433-03-10 12:00 G	6627430.86	6627431.00	6627431.14	0.1590	0.0616
Mercury	13435-12-27 02:24 G	6628452.49	6628452.60	6628452.71	0.1947	0.0914
Moon	13436-08-04 17:02 G	6628674.08	6628674.21	6628674.35	0.1646	0.1083
Earth	13436-08-04 23:31 G	6628674.33	6628674.48	6628674.62	0.1646	0.1031 *
Mercury	13442-07-31 17:45 G	6630861.15	6630861.24	6630861.33	0.1589	0.1267
Mercury	13444-07-06 20:24 G	6631567.32	6631567.35	6631567.39	0.1594	0.1541
Mercury	13445-05-18 07:55 G	6631882.82	6631882.83	6631882.84	0.1948	0.1941
Mercury	13453-11-27 01:26 G	6634997.43	6634997.56	6634997.69	0.1592	0.0836
Mercury	13456-09-13 14:38 G	6636019.02	6636019.11	6636019.21	0.1943	0.1177
Venus	13457-10-04 01:55 G	6636404.41	6636404.58	6636404.76	0.1609	0.0063
Venus	13460-07-13 01:55 G	6637417.43	6637417.58	6637417.72	0.1924	0.1047
Mercury	13463-04-19 06:43 G	6638427.63	6638427.78	6638427.93	0.1591	0.0144

Mercury	13466-02-03 20:38 G	6639449.24	6639449.36	6639449.48	0.1945	0.0189
Mercury	13472-09-08 12:14 G	6641857.87	6641858.01	6641858.16	0.1590	0.0527
Mercury	13475-06-27 02:38 G	6642879.50	6642879.61	6642879.72	0.1947	0.0803
Mercury	13482-01-29 18:14 G	6645288.16	6645288.26	6645288.36	0.1589	0.1181
Mercury	13484-11-16 07:55 G	6646309.80	6646309.83	6646309.87	0.1948	0.1848
Venus	13489-10-02 18:00 G	6648091.14	6648091.25	6648091.37	0.1614	0.1220
Venus	13491-08-02 23:02 G	6648760.40	6648760.46	6648760.53	0.1602	0.1474
Mercury	13493-05-28 01:55 G	6649424.45	6649424.58	6649424.70	0.1592	0.0930
Mercury	13496-03-14 14:52 G	6650446.02	6650446.12	6650446.21	0.1943	0.1268
Mercury	13502-10-19 07:12 G	6652854.65	6652854.80	6652854.95	0.1591	0.0245
Mercury	13505-08-05 20:52 G	6653876.25	6653876.37	6653876.49	0.1945	0.0303
Moon	13509-02-05 14:52 G	6655156.04	6655156.12	6655156.21	0.1889	0.1665
Mercury	13512-03-10 12:43 G	6656284.88	6656285.03	6656285.18	0.1590	0.0433
Mercury	13514-12-27 02:38 G	6657306.49	6657306.61	6657306.72	0.1947	0.0719
Mercury	13521-07-31 18:28 G	6659715.16	6659715.27	6659715.38	0.1589	0.1094
Venus	13523-08-02 14:24 G	6660446.93	6660447.10	6660447.27	0.1607	0.0228
Mercury	13524-05-18 08:09 G	6660736.79	6660736.84	6660736.89	0.1948	0.1747
Venus	13526-05-11 03:36 G	6661459.48	6661459.65	6661459.82	0.1927	0.0466
Mercury	13532-11-27 02:09 G	6663851.48	6663851.59	6663851.71	0.1592	0.1024
Mercury	13535-09-14 14:52 G	6664873.04	6664873.12	6664873.21	0.1943	0.1372
Mercury	13542-04-19 07:40 G	6667281.67	6667281.82	6667281.97	0.1591	0.0336
Mercury	13545-02-03 21:07 G	6668303.26	6668303.38	6668303.50	0.1945	0.0397
Mercury	13551-09-09 13:12 G	6670711.90	6670712.05	6670712.20	0.1590	0.0342
Mercury	13554-06-27 02:52 G	6671733.50	6671733.62	6671733.73	0.1947	0.0614
Venus	13555-08-01 06:28 G	6672133.64	6672133.77	6672133.90	0.1612	0.1049
Mercury	13561-01-29 18:57 G	6674142.17	6674142.29	6674142.41	0.1589	0.1000
Moon	13562-08-02 19:55 G	6674692.15	6674692.33	6674692.51	0.1658	0.0728
Earth	13562-08-02 19:40 G	6674692.17	6674692.32	6674692.48	0.1658	0.0914 *
Mercury	13563-11-17 08:24 G	6675163.78	6675163.85	6675163.91	0.1948	0.1647
Mercury	13572-05-28 02:52 G	6678278.51	6678278.62	6678278.72	0.1592	0.1124

Mercury	13575-03-15 15:07 G	6679300.05	6679300.13	6679300.20	0.1943	0.1462
Mercury	13581-10-18 07:55 G	6681708.68	6681708.83	6681708.98	0.1591	0.0426
Mercury	13584-08-04 21:07 G	6682730.26	6682730.38	6682730.50	0.1945	0.0487
Venus	13589-05-30 02:52 G	6684489.45	6684489.62	6684489.79	0.1605	0.0390
Mercury	13591-03-10 13:26 G	6685138.91	6685139.06	6685139.21	0.1590	0.0253
Venus	13592-03-07 05:45 G	6685501.56	6685501.74	6685501.91	0.1929	0.0116
Mercury	13593-12-26 02:52 G	6686160.51	6686160.62	6686160.74	0.1947	0.0517
Mercury	13600-07-30 19:12 G	6688569.18	6688569.30	6688569.43	0.1589	0.0911
Mercury	13603-05-18 08:24 G	6689590.78	6689590.85	6689590.93	0.1948	0.1546
Mercury	13609-12-21 01:12 G	6691999.53	6691999.55	6691999.58	0.1588	0.1556
Mercury	13611-11-27 03:07 G	6692705.54	6692705.63	6692705.73	0.1592	0.1220
Mercury	13614-09-13 15:07 G	6693727.06	6693727.13	6693727.20	0.1943	0.1558
Mercury	13621-04-18 08:24 G	6696135.71	6696135.85	6696136.00	0.1591	0.0525
Venus	13621-05-28 18:43 G	6696176.13	6696176.28	6696176.42	0.1610	0.0882
Mercury	13624-02-03 21:21 G	6697157.27	6697157.39	6697157.50	0.1945	0.0591
Mercury	13630-09-08 13:55 G	6699565.93	6699566.08	6699566.23	0.1590	0.0157
Mercury	13633-06-26 03:07 G	6700587.51	6700587.63	6700587.75	0.1947	0.0418
Mercury	13640-01-29 19:40 G	6702996.19	6702996.32	6702996.45	0.1589	0.0825
Earth	13641-08-04 23:16 G	6703549.29	6703549.47	6703549.65	0.1654	0.0390
Moon	13641-08-05 05:31 G	6703549.54	6703549.73	6703549.91	0.1654	0.0301 *
Mercury	13642-11-16 08:38 G	6704017.78	6704017.86	6704017.94	0.1948	0.1451
Mercury	13649-06-21 01:40 G	6706426.51	6706426.57	6706426.62	0.1588	0.1468
Mercury	13651-05-28 03:36 G	6707132.56	6707132.65	6707132.73	0.1592	0.1311
Mercury	13654-03-14 15:07 G	6708154.07	6708154.13	6708154.20	0.1943	0.1657
Venus	13655-03-27 15:36 G	6708531.99	6708532.15	6708532.32	0.1604	0.0549
Venus	13658-01-02 07:12 G	6709543.64	6709543.80	6709543.96	0.1932	0.0696
Mercury	13660-10-17 08:52 G	6710562.73	6710562.87	6710563.01	0.1591	0.0619
Mercury	13663-08-04 21:36 G	6711584.28	6711584.40	6711584.51	0.1945	0.0695
Mercury	13670-03-09 14:24 G	6713992.95	6713993.10	6713993.25	0.1590	0.0067
Mercury	13672-12-25 03:07 G	6715014.51	6715014.63	6715014.75	0.1947	0.0322

Mercury	13679-07-30 20:09 G	6717423.20	6717423.34	6717423.47	0.1589	0.0728
Mercury	13682-05-17 08:52 G	6718444.78	6718444.87	6718444.96	0.1948	0.1345
Venus	13687-03-26 07:12 G	6720218.64	6720218.80	6720218.95	0.1609	0.0712
Mercury	13688-12-20 01:55 G	6720853.51	6720853.58	6720853.65	0.1588	0.1382
Mercury	13690-11-26 04:04 G	6721559.60	6721559.67	6721559.74	0.1592	0.1413
Mercury	13693-09-12 15:21 G	6722581.09	6722581.14	6722581.19	0.1943	0.1751
Mercury	13700-04-18 09:07 G	6724989.75	6724989.88	6724990.02	0.1591	0.0711
Mercury	13703-02-03 21:21 G	6726011.28	6726011.39	6726011.50	0.1945	0.0778
Mercury	13709-09-08 14:38 G	6728419.96	6728420.11	6728420.27	0.1590	0.0041
Mercury	13712-06-26 03:21 G	6729441.52	6729441.64	6729441.77	0.1947	0.0222
Moon	13714-02-01 18:28 G	6730027.18	6730027.27	6730027.35	0.1873	0.1701
Earth	13714-02-02 02:38 G	6730027.54	6730027.61	6730027.68	0.1873	0.1741
Mercury	13719-01-29 20:24 G	6731850.21	6731850.35	6731850.49	0.1589	0.0640
Venus	13721-01-23 04:04 G	6732574.52	6732574.67	6732574.83	0.1603	0.0712
Mercury	13721-11-16 08:52 G	6732871.78	6732871.87	6732871.96	0.1948	0.1250
Venus	13723-10-31 09:21 G	6733585.76	6733585.89	6733586.02	0.1934	0.1272
Mercury	13728-06-21 02:24 G	6735280.51	6735280.60	6735280.69	0.1588	0.1289
Mercury	13730-05-28 04:33 G	6735986.64	6735986.69	6735986.73	0.1592	0.1510
Mercury	13733-03-14 15:21 G	6737008.11	6737008.14	6737008.18	0.1943	0.1844
Mercury	13739-10-18 09:50 G	6739416.77	6739416.91	6739417.04	0.1591	0.0812
Mercury	13742-08-04 21:36 G	6740438.30	6740438.40	6740438.51	0.1945	0.0888
Mercury	13749-03-09 15:07 G	6742846.98	6742847.13	6742847.28	0.1590	0.0122
Mercury	13751-12-26 03:21 G	6743868.52	6743868.64	6743868.77	0.1947	0.0131
Venus	13753-01-21 19:40 G	6744261.16	6744261.32	6744261.48	0.1607	0.0552
Venus	13755-10-31 12:57 G	6745273.96	6745274.04	6745274.12	0.1926	0.1712
Mercury	13758-07-30 20:52 G	6746277.22	6746277.37	6746277.51	0.1589	0.0553
Mercury	13761-05-17 09:07 G	6747298.78	6747298.88	6747298.98	0.1948	0.1145
Earth	13767-08-02 17:31 G	6749567.21	6749567.23	6749567.25	0.1667	0.1649
Mercury	13767-12-21 02:38 G	6749707.52	6749707.61	6749707.71	0.1588	0.1202
Mercury	13779-04-18 10:04 G	6753843.80	6753843.92	6753844.05	0.1591	0.0905

Mercury	13782-02-02 21:50 G	6754865.30	6754865.41	6754865.51	0.1945	0.0980
Venus	13786-11-20 17:02 G	6756617.06	6756617.21	6756617.35	0.1601	0.0868
Mercury	13788-09-07 15:36 G	6757274.00	6757274.15	6757274.30	0.1590	0.0218
Venus	13789-08-27 10:48 G	6757627.91	6757627.95	6757627.99	0.1936	0.1879
Mercury	13791-06-26 03:36 G	6758295.53	6758295.65	6758295.77	0.1947	0.0030
Earth	13793-02-05 16:19 G	6758886.04	6758886.18	6758886.31	0.1880	0.1371
Moon	13793-02-05 22:33 G	6758886.28	6758886.44	6758886.61	0.1881	0.1212 *
Mercury	13798-01-28 21:07 G	6760704.24	6760704.38	6760704.53	0.1589	0.0457
Mercury	13800-11-16 09:07 G	6761725.78	6761725.88	6761725.99	0.1948	0.1048
Mercury	13807-06-22 03:07 G	6764134.52	6764134.63	6764134.73	0.1588	0.1113
Mercury	13818-10-18 10:33 G	6768270.82	6768270.94	6768271.05	0.1591	0.0998
Venus	13818-11-20 08:09 G	6768303.67	6768303.84	6768304.01	0.1606	0.0385
Mercury	13821-08-04 21:50 G	6769292.31	6769292.41	6769292.51	0.1945	0.1075
Venus	13821-08-28 14:52 G	6769315.98	6769316.12	6769316.26	0.1929	0.1138
Mercury	13828-03-09 15:50 G	6771701.01	6771701.16	6771701.31	0.1590	0.0311
Mercury	13830-12-26 03:50 G	6772722.54	6772722.66	6772722.78	0.1947	0.0086
Mercury	13837-07-30 21:36 G	6775131.25	6775131.40	6775131.55	0.1589	0.0362
Mercury	13840-05-17 09:21 G	6776152.78	6776152.89	6776153.00	0.1948	0.0945
Moon	13846-08-05 15:07 G	6778423.94	6778424.13	6778424.31	0.1663	0.0202
Earth	13846-08-05 21:50 G	6778424.22	6778424.41	6778424.59	0.1663	0.0306 *
Mercury	13846-12-21 03:21 G	6778561.53	6778561.64	6778561.76	0.1588	0.1022
Venus	13852-09-18 05:31 G	6780659.60	6780659.73	6780659.87	0.1600	0.1029
Mercury	13858-04-18 11:02 G	6782697.85	6782697.96	6782698.07	0.1591	0.1099
Mercury	13861-02-02 22:04 G	6783719.32	6783719.42	6783719.51	0.1945	0.1177
Mercury	13867-09-08 16:19 G	6786128.03	6786128.18	6786128.33	0.1590	0.0407
Mercury	13870-06-26 03:50 G	6787149.54	6787149.66	6787149.78	0.1947	0.0179
Mercury	13877-01-28 21:50 G	6789558.26	6789558.41	6789558.56	0.1589	0.0277
Mercury	13879-11-16 09:36 G	6790579.78	6790579.90	6790580.01	0.1949	0.0847
Venus	13884-09-16 21:07 G	6792346.20	6792346.38	6792346.55	0.1604	0.0234
Mercury	13886-06-21 03:50 G	6792988.54	6792988.66	6792988.78	0.1588	0.0930

Venus	13887-06-25 16:19 G	6793358.02	6793358.18	6793358.35	0.1931	0.0553
Mercury	13889-04-07 14:52 G	6794010.10	6794010.12	6794010.15	0.1949	0.1893
Mercury	13895-11-11 10:04 G	6796418.90	6796418.92	6796418.93	0.1587	0.1574
Mercury	13897-10-17 11:31 G	6797124.88	6797124.98	6797125.08	0.1591	0.1197
Mercury	13900-08-04 22:04 G	6798146.33	6798146.42	6798146.52	0.1945	0.1282
Mercury	13907-03-10 16:48 G	6800555.05	6800555.20	6800555.34	0.1590	0.0502
Mercury	13909-12-26 04:04 G	6801576.55	6801576.67	6801576.79	0.1947	0.0282
Mercury	13916-07-30 22:19 G	6803985.28	6803985.43	6803985.59	0.1589	0.0181
Venus	13916-09-16 12:43 G	6804032.98	6804033.03	6804033.09	0.1609	0.1514
Venus	13918-07-17 18:28 G	6804702.16	6804702.27	6804702.39	0.1599	0.1182
Mercury	13919-05-18 09:36 G	6805006.79	6805006.90	6805007.02	0.1948	0.0744
Moon	13925-08-08 21:21 G	6807281.22	6807281.39	6807281.56	0.1659	0.0885
Earth	13925-08-09 01:40 G	6807281.42	6807281.57	6807281.71	0.1659	0.1017 *
Mercury	13925-12-21 04:04 G	6807415.55	6807415.67	6807415.80	0.1588	0.0843
Mercury	13928-10-07 14:52 G	6808437.08	6808437.12	6808437.17	0.1949	0.1803
Mercury	13935-05-13 10:19 G	6810845.88	6810845.93	6810845.98	0.1587	0.1488
Mercury	13937-04-18 11:45 G	6811551.90	6811551.99	6811552.08	0.1591	0.1288
Mercury	13940-02-03 22:04 G	6812573.34	6812573.42	6812573.51	0.1945	0.1369
Mercury	13946-09-08 17:16 G	6814982.07	6814982.22	6814982.36	0.1590	0.0598
Mercury	13949-06-26 04:19 G	6816003.56	6816003.68	6816003.80	0.1947	0.0390
Venus	13950-07-16 09:36 G	6816388.72	6816388.90	6816389.07	0.1603	0.0074
Venus	13953-04-22 17:45 G	6817400.07	6817400.24	6817400.42	0.1934	0.0058
Mercury	13956-01-29 22:48 G	6818412.30	6818412.45	6818412.60	0.1589	0.0084
Mercury	13958-11-16 09:50 G	6819433.79	6819433.91	6819434.03	0.1948	0.0645
Mercury	13965-06-21 04:33 G	6821842.56	6821842.69	6821842.83	0.1588	0.0747
Mercury	13968-04-07 15:07 G	6822864.08	6822864.13	6822864.20	0.1949	0.1692
Mercury	13974-11-11 10:48 G	6825272.88	6825272.95	6825273.01	0.1587	0.1396
Mercury	13976-10-17 12:14 G	6825978.94	6825979.01	6825979.08	0.1591	0.1392
Mercury	13979-08-04 22:33 G	6827000.36	6827000.44	6827000.51	0.1945	0.1478
Venus	13982-07-15 01:12 G	6828075.46	6828075.55	6828075.64	0.1608	0.1344

Venus	13984-05-14 06:57 G	6828744.70	6828744.79	6828744.88	0.1598	0.1345
Mercury	13986-03-09 17:31 G	6829409.10	6829409.23	6829409.37	0.1590	0.0692
Mercury	13988-12-25 04:19 G	6830430.56	6830430.68	6830430.79	0.1947	0.0478
Mercury	13995-07-30 23:16 G	6832839.31	6832839.47	6832839.62	0.1589	0.0050
Mercury	13998-05-17 10:04 G	6833860.80	6833860.92	6833861.04	0.1949	0.0536

15TH MILLENNIUM CE

This is a list of transits visible from Mars in the 15th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	14004-12-20 05:02 G		6836269.57	6836269.71	6836269.85	0.1588	0.0655	
Mercury	14007-10-07 15:21 G		6837291.07	6837291.14	6837291.21	0.1949	0.1586	
Mercury	14014-05-12 11:02 G		6839699.88	6839699.96	6839700.04	0.1587	0.1307	
Mercury	14016-04-17 12:43 G		6840405.98	6840406.03	6840406.08	0.1591	0.1488	
Venus	14016-05-12 22:19 G		6840431.26	6840431.43	6840431.60	0.1602	0.0089	
Mercury	14019-02-02 22:33 G		6841427.37	6841427.44	6841427.51	0.1945	0.1570	
Venus	14019-02-17 19:55 G		6841442.16	6841442.33	6841442.50	0.1936	0.0640	
Mercury	14025-09-07 18:00 G		6843836.12	6843836.25	6843836.39	0.1590	0.0792	
Mercury	14028-06-25 04:33 G		6844857.57	6844857.69	6844857.80	0.1947	0.0587	
Mercury	14035-01-28 23:45 G		6847266.33	6847266.49	6847266.64	0.1588	0.0118	
Mercury	14037-11-15 10:04 G		6848287.80	6848287.92	6848288.04	0.1948	0.0441	
Mercury	14044-06-20 05:16 G		6850696.58	6850696.72	6850696.86	0.1588	0.0567	
Mercury	14047-04-07 15:21 G		6851718.07	6851718.14	6851718.22	0.1949	0.1497	
Venus	14048-05-11 13:55 G		6852117.96	6852118.08	6852118.19	0.1606	0.1184	

Venus	14050-03-11 20:09 G	6852787.28	6852787.34	6852787.40	0.1597	0.1495
Earth	14051-08-05 18:28 G	6853299.12	6853299.27	6853299.41	0.1672	0.1064
Moon	14051-08-06 00:57 G	6853299.41	6853299.54	6853299.68	0.1672	0.1166 *
Mercury	14053-11-10 11:16 G	6854126.88	6854126.97	6854127.07	0.1587	0.1220
Mercury	14055-10-17 12:57 G	6854833.03	6854833.04	6854833.05	0.1591	0.1583
Mercury	14058-08-03 22:33 G	6855854.38	6855854.44	6855854.50	0.1945	0.1672
Mercury	14065-03-08 18:28 G	6858263.14	6858263.27	6858263.40	0.1590	0.0886
Mercury	14067-12-25 04:33 G	6859284.58	6859284.69	6859284.81	0.1947	0.0692
Mercury	14074-07-30 00:00 G	6861693.35	6861693.50	6861693.65	0.1589	0.0202
Moon	14077-02-06 15:07 G	6862615.95	6862616.13	6862616.31	0.1871	0.0755
Earth	14077-02-07 00:00 G	6862616.32	6862616.50	6862616.67	0.1871	0.0948
Mercury	14077-05-16 10:19 G	6862714.81	6862714.93	6862715.05	0.1948	0.0336
Venus	14082-03-10 11:02 G	6864473.79	6864473.96	6864474.14	0.1600	0.0251
Mercury	14083-12-20 05:45 G	6865123.60	6865123.74	6865123.89	0.1588	0.0470
Venus	14084-12-14 21:07 G	6865484.25	6865484.38	6865484.52	0.1938	0.1254
Mercury	14086-10-06 15:50 G	6866145.07	6866145.16	6866145.24	0.1949	0.1380
Mercury	14093-05-11 11:45 G	6868553.89	6868553.99	6868554.10	0.1587	0.1125
Mercury	14098-02-01 22:48 G	6870281.40	6870281.45	6870281.50	0.1945	0.1771
Mercury	14104-09-07 18:57 G	6872690.17	6872690.29	6872690.41	0.1590	0.0984
Mercury	14107-06-26 04:48 G	6873711.58	6873711.70	6873711.81	0.1947	0.0783
Mercury	14114-01-29 00:14 G	6876120.36	6876120.51	6876120.66	0.1589	0.0295
Venus	14114-03-10 02:24 G	6876160.46	6876160.60	6876160.73	0.1605	0.1016
Mercury	14116-11-15 10:33 G	6877141.81	6877141.94	6877142.06	0.1949	0.0239
Venus	14116-12-16 02:09 G	6877172.54	6877172.59	6877172.65	0.1931	0.1823
Mercury	14123-06-21 06:14 G	6879550.61	6879550.76	6879550.91	0.1588	0.0376
Mercury	14126-04-07 16:04 G	6880572.07	6880572.17	6880572.26	0.1949	0.1277
Earth	14130-08-09 00:00 G	6882156.31	6882156.50	6882156.68	0.1668	0.0327
Moon	14130-08-09 03:21 G	6882156.47	6882156.64	6882156.81	0.1668	0.0469 *
Mercury	14132-11-10 12:14 G	6882980.90	6882981.01	6882981.12	0.1587	0.1032
Mercury	14137-08-03 23:02 G	6884708.43	6884708.46	6884708.49	0.1945	0.1874

Mercury	14144-03-08 19:26 G	6887117.19	6887117.31	6887117.42	0.1590	0.1082
Mercury	14146-12-25 04:48 G	6888138.59	6888138.70	6888138.81	0.1947	0.0887
Venus	14148-01-06 23:45 G	6888516.33	6888516.49	6888516.66	0.1599	0.0408
Venus	14150-10-12 23:31 G	6889526.42	6889526.48	6889526.53	0.1940	0.1842
Mercury	14153-07-30 00:57 G	6890547.39	6890547.54	6890547.68	0.1588	0.0395
Mercury	14156-05-16 10:33 G	6891568.82	6891568.94	6891569.07	0.1948	0.0147
Mercury	14162-12-20 06:28 G	6893977.62	6893977.77	6893977.92	0.1588	0.0287
Mercury	14165-10-06 16:04 G	6894999.07	6894999.17	6894999.27	0.1950	0.1183
Mercury	14172-05-11 12:28 G	6897407.90	6897408.02	6897408.14	0.1587	0.0945
Venus	14180-01-05 15:07 G	6900202.99	6900203.13	6900203.28	0.1603	0.0861
Mercury	14181-10-01 18:43 G	6900838.28	6900838.28	6900838.29	0.1587	0.1585
Venus	14182-10-13 04:04 G	6901214.53	6901214.67	6901214.80	0.1933	0.1235
Mercury	14183-09-07 19:40 G	6901544.22	6901544.32	6901544.43	0.1590	0.1181
Mercury	14186-06-25 05:16 G	6902565.61	6902565.72	6902565.82	0.1947	0.0999
Mercury	14193-01-28 01:12 G	6904974.41	6904974.55	6904974.70	0.1589	0.0490
Mercury	14195-11-15 10:48 G	6905995.83	6905995.95	6905996.07	0.1948	0.0037
Mercury	14202-06-21 06:57 G	6908404.64	6908404.79	6908404.94	0.1588	0.0191
Mercury	14205-04-07 16:19 G	6909426.08	6909426.18	6909426.28	0.1949	0.1069
Moon	14209-08-11 23:31 G	6911013.42	6911013.48	6911013.54	0.1664	0.1549
Earth	14209-08-12 03:50 G	6911013.66	6911013.66	6911013.67	0.1664	0.1663
Mercury	14211-11-11 12:57 G	6911834.91	6911835.04	6911835.17	0.1587	0.0850
Venus	14213-11-04 12:57 G	6912558.88	6912559.04	6912559.20	0.1598	0.0560
Mercury	14221-04-02 19:12 G	6915265.25	6915265.30	6915265.34	0.1587	0.1498
Mercury	14223-03-09 20:09 G	6915971.25	6915971.34	6915971.43	0.1590	0.1277
Mercury	14225-12-25 05:02 G	6916992.61	6916992.71	6916992.81	0.1947	0.1083
Mercury	14232-07-30 01:40 G	6919401.43	6919401.57	6919401.71	0.1589	0.0582
Mercury	14235-05-17 11:02 G	6920422.84	6920422.96	6920423.08	0.1949	0.0082
Mercury	14241-12-20 07:26 G	6922831.66	6922831.81	6922831.96	0.1588	0.0095
Mercury	14244-10-06 16:33 G	6923853.08	6923853.19	6923853.30	0.1949	0.0964
Venus	14245-11-03 03:50 G	6924245.50	6924245.66	6924245.81	0.1602	0.0697

Venus	14248-08-10 05:31 G	6925256.57	6925256.73	6925256.90	0.1936	0.0639
Mercury	14251-05-12 13:26 G	6926261.93	6926262.06	6926262.19	0.1587	0.0756
Mercury	14260-10-01 19:40 G	6929692.25	6929692.32	6929692.38	0.1587	0.1402
Mercury	14262-09-07 20:38 G	6930398.29	6930398.36	6930398.44	0.1590	0.1381
Mercury	14265-06-25 05:16 G	6931419.63	6931419.72	6931419.82	0.1947	0.1198
Mercury	14272-01-29 02:09 G	6933828.45	6933828.59	6933828.73	0.1588	0.0682
Mercury	14274-11-15 11:02 G	6934849.84	6934849.96	6934850.09	0.1948	0.0184
Venus	14279-09-02 01:55 G	6936601.42	6936601.58	6936601.73	0.1597	0.0719
Mercury	14281-06-20 07:40 G	6937258.67	6937258.82	6937258.98	0.1588	0.0043
Mercury	14284-04-06 16:33 G	6938280.08	6938280.19	6938280.30	0.1950	0.0871
Mercury	14290-11-10 13:40 G	6940688.94	6940689.07	6940689.21	0.1587	0.0666
Mercury	14293-08-27 21:50 G	6941710.40	6941710.41	6941710.43	0.1950	0.1925
Mercury	14300-04-02 19:55 G	6944119.25	6944119.33	6944119.41	0.1587	0.1312
Mercury	14302-03-09 21:07 G	6944825.33	6944825.38	6944825.43	0.1590	0.1477
Mercury	14304-12-25 05:31 G	6945846.64	6945846.73	6945846.82	0.1947	0.1298
Mercury	14311-07-31 02:38 G	6948255.48	6948255.61	6948255.74	0.1589	0.0781
Venus	14311-09-01 17:02 G	6948288.04	6948288.21	6948288.37	0.1601	0.0547
Mercury	14314-05-17 11:16 G	6949276.85	6949276.97	6949277.09	0.1948	0.0281
Venus	14314-06-08 07:12 G	6949298.63	6949298.80	6949298.98	0.1937	0.0041
Mercury	14320-12-20 08:24 G	6951685.69	6951685.85	6951686.00	0.1588	0.0111
Mercury	14323-10-07 16:48 G	6952707.09	6952707.20	6952707.32	0.1949	0.0754
Mercury	14330-05-12 14:09 G	6955115.95	6955116.09	6955116.23	0.1587	0.0570
Mercury	14333-02-26 21:50 G	6956137.37	6956137.41	6956137.45	0.1950	0.1837
Moon	14335-08-09 16:33 G	6957031.01	6957031.19	6957031.37	0.1678	0.0625
Earth	14335-08-09 19:55 G	6957031.15	6957031.33	6957031.51	0.1677	0.0449 *
Mercury	14339-10-02 20:09 G	6958546.25	6958546.34	6958546.44	0.1587	0.1226
Mercury	14341-09-07 21:36 G	6959252.38	6959252.40	6959252.41	0.1590	0.1576
Mercury	14344-06-25 05:31 G	6960273.65	6960273.73	6960273.82	0.1947	0.1392
Venus	14345-					
Mercury	14351-01-29 02:52 G	6962682.49	6962682.62	6962682.75	0.1589	0.0874

Mercury	14353-11-15 11:31 G	6963703.86	6963703.98	6963704.10	0.1949	0.0391
Mercury	14360-06-20 08:38 G	6966112.71	6966112.86	6966113.01	0.1588	0.0196
Earth	14361-02-09 11:31 G	6966346.79	6966346.98	6966347.17	0.1863	0.0664
Moon	14361-02-09 17:45 G	6966347.08	6966347.24	6966347.41	0.1863	0.0893 *
Mercury	14363-04-07 17:02 G	6967134.09	6967134.21	6967134.33	0.1949	0.0651
Mercury	14369-11-10 14:38 G	6969542.97	6969543.11	6969543.25	0.1587	0.0475
Mercury	14372-08-27 22:04 G	6970564.37	6970564.42	6970564.48	0.1950	0.1723
Venus	14377-06-29 05:31 G	6972330.56	6972330.73	6972330.90	0.1599	0.0384
Mercury	14379-04-02 20:38 G	6972973.26	6972973.36	6972973.47	0.1586	0.1129
Venus	14380-04-04 08:24 G	6973340.68	6973340.85	6973341.02	0.1940	0.0586
Mercury	14383-12-25 05:45 G	6974700.67	6974700.74	6974700.82	0.1947	0.1499
Mercury	14390-07-30 03:21 G	6977109.53	6977109.64	6977109.76	0.1588	0.0979
Mercury	14393-05-16 11:45 G	6978130.87	6978130.99	6978131.10	0.1948	0.0495
Mercury	14399-12-20 09:07 G	6980539.73	6980539.88	6980540.03	0.1588	0.0288
Mercury	14402-10-06 17:02 G	6981561.09	6981561.21	6981561.33	0.1950	0.0554
Mercury	14409-05-11 14:52 G	6983969.98	6983970.12	6983970.27	0.1587	0.0385
Venus	14411-04-28 03:36 G	6984686.52	6984686.65	6984686.78	0.1595	0.1029
Mercury	14412-02-26 22:19 G	6984991.37	6984991.43	6984991.50	0.1950	0.1613
Earth	14414-08-12 02:09 G	6985888.44	6985888.59	6985888.74	0.1673	0.0968
Moon	14414-08-12 06:28 G	6985888.62	6985888.77	6985888.92	0.1673	0.1087 *
Mercury	14418-10-01 21:07 G	6987400.27	6987400.38	6987400.49	0.1587	0.1036
Mercury	14423-06-25 06:00 G	6989127.69	6989127.75	6989127.82	0.1947	0.1611
Mercury	14430-01-28 03:50 G	6991536.55	6991536.66	6991536.77	0.1589	0.1075
Mercury	14432-11-14 11:45 G	6992557.87	6992557.99	6992558.11	0.1948	0.0591
Mercury	14439-06-20 09:36 G	6994966.75	6994966.90	6994967.04	0.1588	0.0388
Mercury	14442-04-06 17:16 G	6995988.10	6995988.22	6995988.34	0.1950	0.0444
Venus	14443-04-26 18:28 G	6996373.10	6996373.27	6996373.45	0.1598	0.0235
Venus	14446-01-30 10:33 G	6997382.80	6997382.94	6997383.07	0.1941	0.1186
Mercury	14448-11-09 15:21 G	6998396.99	6998397.14	6998397.29	0.1587	0.0288
Mercury	14451-08-27 22:33 G	6999418.36	6999418.44	6999418.52	0.1950	0.1513

Mercury	14458-04-01 21:21 G	7001827.27	7001827.39	7001827.51	0.1586	0.0948
Mercury	14462-12-24 06:00 G	7003554.69	7003554.75	7003554.81	0.1947	0.1695
Mercury	14469-07-29 04:19 G	7005963.58	7005963.68	7005963.78	0.1589	0.1171
Mercury	14472-05-15 12:00 G	7006984.89	7006985.00	7006985.12	0.1949	0.0706
Venus	14475-04-25 09:50 G	7008059.86	7008059.91	7008059.97	0.1602	0.1508
Venus	14477-02-22 16:48 G	7008729.09	7008729.20	7008729.32	0.1594	0.1177
Mercury	14478-12-19 09:50 G	7009393.77	7009393.91	7009394.06	0.1588	0.0486
Mercury	14481-10-05 17:31 G	7010415.11	7010415.23	7010415.35	0.1949	0.0336
Mercury	14488-05-10 15:50 G	7012824.01	7012824.16	7012824.31	0.1587	0.0190
Mercury	14491-02-25 22:48 G	7013845.36	7013845.45	7013845.53	0.1950	0.1406
Mercury	14497-09-30 21:50 G	7016254.29	7016254.41	7016254.54	0.1586	0.0850
Mercury	14502-06-25 06:14 G	7017981.72	7017981.76	7017981.81	0.1947	0.1812
Mercury	14507-02-22 04:04 G	7019684.63	7019684.67	7019684.72	0.1586	0.1500
Mercury	14509-01-28 04:48 G	7020390.61	7020390.70	7020390.79	0.1588	0.1273
Venus	14509-02-22 07:26 G	7020415.64	7020415.81	7020415.99	0.1597	0.0083
Mercury	14511-11-15 12:00 G	7021411.89	7021412.00	7021412.12	0.1948	0.0801
Venus	14511-11-28 11:31 G	7021424.92	7021424.98	7021425.04	0.1943	0.1815
Mercury	14518-06-20 10:19 G	7023820.79	7023820.93	7023821.07	0.1588	0.0578
Mercury	14521-04-06 17:31 G	7024842.11	7024842.23	7024842.36	0.1950	0.0248
Mercury	14527-11-10 16:19 G	7027251.03	7027251.18	7027251.33	0.1587	0.0104
Mercury	14530-08-27 23:02 G	7028272.37	7028272.46	7028272.56	0.1950	0.1287
Mercury	14537-04-01 22:19 G	7030681.30	7030681.43	7030681.56	0.1586	0.0758
Earth	14540-08-08 14:24 G	7031905.98	7031906.10	7031906.22	0.1688	0.1282
Moon	14540-08-08 18:28 G	7031906.14	7031906.27	7031906.41	0.1687	0.1105 *
Venus	14541-02-20 22:19 G	7032102.34	7032102.43	7032102.53	0.1601	0.1343
Mercury	14541-12-24 06:28 G	7032408.75	7032408.77	7032408.79	0.1947	0.1912
Venus	14542-12-22 05:31 G	7032771.64	7032771.73	7032771.83	0.1593	0.1333
Venus	14543-11-28 17:31 G	7033113.11	7033113.23	7033113.36	0.1937	0.1350
Mercury	14546-08-23 04:33 G	7034111.63	7034111.69	7034111.76	0.1586	0.1403
Mercury	14548-07-29 05:16 G	7034817.64	7034817.72	7034817.79	0.1589	0.1375

Mercury	14551-05-16 12:14 G	7035838.90	7035839.01	7035839.12	0.1949	0.0907
Mercury	14557-12-19 10:48 G	7038247.81	7038247.95	7038248.09	0.1588	0.0681
Mercury	14560-10-05 18:00 G	7039269.12	7039269.25	7039269.37	0.1950	0.0128
Mercury	14567-05-11 16:33 G	7041678.04	7041678.19	7041678.34	0.1587	0.0016
Mercury	14570-02-25 23:02 G	7042699.36	7042699.46	7042699.56	0.1950	0.1199
Venus	14574-12-20 20:24 G	7044458.18	7044458.35	7044458.53	0.1596	0.0084
Mercury	14576-09-30 22:33 G	7045108.31	7045108.44	7045108.58	0.1586	0.0668
Mercury	14586-02-21 05:02 G	7048538.63	7048538.71	7048538.79	0.1586	0.1314
Mercury	14588-01-28 05:31 G	7049244.68	7049244.73	7049244.79	0.1589	0.1470
Mercury	14590-11-14 12:28 G	7050265.92	7050266.02	7050266.13	0.1949	0.1017
Mercury	14597-06-19 11:16 G	7052674.84	7052674.97	7052675.10	0.1588	0.0778
Mercury	14600-04-06 18:00 G	7053696.13	7053696.25	7053696.38	0.1949	0.0048
Mercury	14606-11-10 17:02 G	7056105.06	7056105.21	7056105.36	0.1587	0.0098
Venus	14606-12-20 11:31 G	7056144.86	7056144.98	7056145.09	0.1600	0.1190
Venus	14608-10-19 18:57 G	7056814.23	7056814.29	7056814.35	0.1592	0.1481
Mercury	14609-08-27 23:16 G	7057126.37	7057126.47	7057126.58	0.1950	0.1083
Venus	14609-09-25 19:12 G	7057155.14	7057155.30	7057155.46	0.1939	0.0741
Mercury	14616-04-01 23:02 G	7059535.32	7059535.46	7059535.60	0.1586	0.0569
Moon	14619-08-12 17:31 G	7060763.06	7060763.23	7060763.41	0.1683	0.0069
Earth	14619-08-12 21:21 G	7060763.20	7060763.39	7060763.57	0.1683	0.0179 *
Mercury	14625-08-23 05:16 G	7062965.63	7062965.72	7062965.82	0.1586	0.1223
Mercury	14627-07-30 06:00 G	7063671.74	7063671.75	7063671.77	0.1588	0.1575
Mercury	14630-05-16 12:43 G	7064692.93	7064693.03	7064693.13	0.1948	0.1115
Mercury	14636-12-19 11:31 G	7067101.86	7067101.98	7067102.11	0.1588	0.0871
Mercury	14639-10-06 18:14 G	7068123.13	7068123.26	7068123.38	0.1950	0.0089
Venus	14640-10-18 09:36 G	7068500.73	7068500.90	7068501.07	0.1595	0.0232
Earth	14645-02-11 02:09 G	7070077.39	7070077.59	7070077.78	0.1854	0.0479
Moon	14645-02-11 02:38 G	7070077.41	7070077.61	7070077.82	0.1854	0.0721 *
Mercury	14646-05-11 17:31 G	7070532.08	7070532.23	7070532.38	0.1587	0.0194
Mercury	14649-02-25 23:45 G	7071553.38	7071553.49	7071553.59	0.1950	0.0972

Mercury	14655-10-01 23:31 G	7073962.34	7073962.48	7073962.62	0.1586	0.0475
Mercury	14665-02-21 05:45 G	7077392.64	7077392.74	7077392.84	0.1586	0.1128
Mercury	14669-11-14 12:43 G	7079119.94	7079120.03	7079120.13	0.1949	0.1216
Venus	14672-10-17 00:14 G	7080187.38	7080187.51	7080187.64	0.1598	0.1029
Venus	14675-07-23 20:38 G	7081197.18	7081197.36	7081197.53	0.1941	0.0132
Mercury	14676-06-19 12:00 G	7081528.89	7081529.00	7081529.12	0.1587	0.0977
Mercury	14679-04-06 18:28 G	7082550.14	7082550.27	7082550.39	0.1950	0.0195
Mercury	14685-11-09 17:45 G	7084959.10	7084959.24	7084959.39	0.1587	0.0291
Mercury	14688-08-26 23:45 G	7085980.38	7085980.49	7085980.60	0.1950	0.0873
Mercury	14695-04-01 23:45 G	7088389.35	7088389.49	7088389.64	0.1586	0.0385
Moon	14698-08-14 21:36 G	7089620.34	7089620.40	7089620.47	0.1678	0.1570
Earth	14698-08-15 03:50 G	7089620.62	7089620.66	7089620.71	0.1678	0.1616
Mercury	14704-08-23 06:00 G	7091819.64	7091819.75	7091819.87	0.1586	0.1038
Venus	14706-08-16 22:33 G	7092543.27	7092543.44	7092543.61	0.1594	0.0391
Mercury	14709-05-16 12:57 G	7093546.95	7093547.04	7093547.13	0.1949	0.1331
Mercury	14715-12-20 12:28 G	7095955.91	7095956.02	7095956.13	0.1588	0.1074
Mercury	14718-10-06 18:43 G	7096977.15	7096977.28	7096977.40	0.1949	0.0304
Mercury	14725-05-11 18:14 G	7099386.12	7099386.26	7099386.41	0.1587	0.0388
Mercury	14728-02-27 00:00 G	7100407.38	7100407.50	7100407.61	0.1950	0.0765
Mercury	14734-10-02 00:14 G	7102816.36	7102816.51	7102816.66	0.1586	0.0286
Mercury	14737-07-19 05:02 G	7103837.68	7103837.71	7103837.75	0.1950	0.1844
Venus	14738-08-15 13:26 G	7104229.91	7104230.06	7104230.20	0.1597	0.0877
Venus	14741-05-20 21:50 G	7105239.24	7105239.41	7105239.58	0.1943	0.0506
Mercury	14744-02-22 06:28 G	7106246.65	7106246.77	7106246.89	0.1586	0.0947
Mercury	14748-11-14 12:57 G	7107973.96	7107974.04	7107974.13	0.1948	0.1425
Mercury	14755-06-20 12:57 G	7110382.94	7110383.04	7110383.14	0.1587	0.1169
Mercury	14758-04-06 18:43 G	7111404.16	7111404.28	7111404.40	0.1950	0.0398
Mercury	14764-11-09 18:43 G	7113813.13	7113813.28	7113813.42	0.1587	0.0483
Mercury	14767-08-28 00:14 G	7114834.39	7114834.51	7114834.63	0.1950	0.0646
Venus	14772-06-13 11:31 G	7116585.81	7116585.98	7116586.14	0.1593	0.0545

Mercury	14774-04-02 00:43 G	7117243.38	7117243.53	7117243.68	0.1586	0.0192
Mercury	14777-01-17 05:16 G	7118264.66	7118264.72	7118264.77	0.1950	0.1744
Mercury	14783-08-23 06:57 G	7120673.66	7120673.79	7120673.91	0.1586	0.0848
Mercury	14788-05-15 13:12 G	7122400.98	7122401.05	7122401.13	0.1949	0.1531
Mercury	14793-01-12 13:12 G	7124104.01	7124104.05	7124104.10	0.1586	0.1497
Mercury	14794-12-19 13:26 G	7124809.97	7124810.06	7124810.15	0.1587	0.1273
Mercury	14797-10-05 18:57 G	7125831.17	7125831.29	7125831.41	0.1950	0.0510
Mercury	14804-05-10 18:57 G	7128240.15	7128240.29	7128240.43	0.1587	0.0579
Venus	14804-06-12 01:55 G	7128272.42	7128272.58	7128272.73	0.1596	0.0714
Mercury	14807-02-26 00:14 G	7129261.39	7129261.51	7129261.63	0.1950	0.0559
Venus	14807-03-17 22:48 G	7129281.31	7129281.45	7129281.59	0.1944	0.1149
Mercury	14813-10-01 00:57 G	7131670.39	7131670.54	7131670.69	0.1586	0.0100
Mercury	14816-07-18 05:31 G	7132691.66	7132691.73	7132691.80	0.1951	0.1625
Mercury	14823-02-21 07:12 G	7135100.67	7135100.80	7135100.93	0.1586	0.0758
Earth	14824-08-11 14:52 G	7135637.95	7135638.12	7135638.29	0.1693	0.0679
Moon	14824-08-11 19:40 G	7135638.13	7135638.32	7135638.51	0.1693	0.0487 *
Mercury	14827-11-14 13:26 G	7136828.00	7136828.06	7136828.12	0.1949	0.1641
Mercury	14832-07-13 13:40 G	7138531.00	7138531.07	7138531.13	0.1586	0.1404
Mercury	14834-06-19 13:40 G	7139237.00	7139237.07	7139237.15	0.1588	0.1372
Mercury	14837-04-05 18:57 G	7140258.18	7140258.29	7140258.41	0.1950	0.0613
Venus	14838-04-11 00:28 G	7140628.36	7140628.52	7140628.67	0.1592	0.0703
Mercury	14843-11-09 19:26 G	7142667.18	7142667.31	7142667.45	0.1587	0.0681
Mercury	14846-08-27 00:28 G	7143688.40	7143688.52	7143688.65	0.1951	0.0442
Mercury	14853-04-01 01:26 G	7146097.41	7146097.56	7146097.71	0.1586	0.0011
Mercury	14856-01-17 05:31 G	7147118.66	7147118.73	7147118.81	0.1950	0.1528
Mercury	14862-08-22 07:40 G	7149527.68	7149527.82	7149527.95	0.1586	0.0668
Mercury	14867-05-15 13:26 G	7151255.01	7151255.06	7151255.12	0.1949	0.1735
Venus	14870-04-09 15:07 G	7152314.97	7152315.13	7152315.30	0.1595	0.0564
Mercury	14872-01-12 13:55 G	7152958.00	7152958.08	7152958.16	0.1586	0.1316
Venus	14873-01-12 00:28 G	7153323.45	7153323.52	7153323.59	0.1946	0.1765

Mercury	14873-12-18 14:09 G	7153664.03	7153664.09	7153664.15	0.1587	0.1467
Mercury	14876-10-04 19:12 G	7154685.19	7154685.30	7154685.42	0.1950	0.0717
Mercury	14883-05-10 19:55 G	7157094.20	7157094.33	7157094.46	0.1587	0.0776
Mercury	14886-02-25 00:43 G	7158115.41	7158115.53	7158115.65	0.1950	0.0332
Mercury	14892-09-30 01:55 G	7160524.43	7160524.58	7160524.73	0.1586	0.0099
Mercury	14895-07-18 05:45 G	7161545.66	7161545.74	7161545.83	0.1951	0.1417
Mercury	14902-02-21 07:55 G	7163954.69	7163954.83	7163954.97	0.1586	0.0571
Earth	14903-08-15 21:07 G	7164495.22	7164495.38	7164495.55	0.1689	0.0795
Moon	14903-08-16 04:04 G	7164495.51	7164495.67	7164495.83	0.1688	0.0842 *
Venus	14904-02-07 13:40 G	7164670.92	7164671.07	7164671.21	0.1591	0.0853
Venus	14905-01-13 06:43 G	7165011.66	7165011.78	7165011.89	0.1940	0.1440
Mercury	14906-11-14 13:40 G	7165682.03	7165682.07	7165682.11	0.1949	0.1839
Mercury	14911-07-14 14:24 G	7167385.00	7167385.10	7167385.19	0.1586	0.1223
Mercury	14913-06-19 14:38 G	7168091.10	7168091.11	7168091.13	0.1587	0.1573
Mercury	14916-04-05 19:26 G	7169112.20	7169112.31	7169112.42	0.1950	0.0823
Mercury	14922-11-09 20:24 G	7171521.22	7171521.35	7171521.47	0.1587	0.0874
Mercury	14925-08-27 00:43 G	7172542.41	7172542.53	7172542.66	0.1951	0.0242
Moon	14929-02-12 10:33 G	7173807.76	7173807.94	7173808.12	0.1844	0.0528
Earth	14929-02-12 18:00 G	7173808.06	7173808.25	7173808.45	0.1845	0.0350 *
Mercury	14932-04-01 02:09 G	7174951.44	7174951.59	7174951.74	0.1586	0.0188
Mercury	14935-01-17 06:00 G	7175972.66	7175972.75	7175972.84	0.1951	0.1308
Venus	14936-02-06 04:04 G	7176357.50	7176357.67	7176357.84	0.1594	0.0406
Mercury	14941-08-22 08:24 G	7178381.71	7178381.85	7178381.99	0.1586	0.0475
Mercury	14951-01-12 14:38 G	7181812.01	7181812.11	7181812.22	0.1586	0.1130
Mercury	14955-10-05 19:40 G	7183539.21	7183539.32	7183539.42	0.1950	0.0930
Mercury	14962-05-10 20:38 G	7185948.24	7185948.36	7185948.48	0.1587	0.0974
Mercury	14965-02-25 00:57 G	7186969.42	7186969.54	7186969.67	0.1951	0.0132
Venus	14969-12-05 02:24 G	7188713.47	7188713.60	7188713.74	0.1590	0.1011
Venus	14970-11-10 08:09 G	7189053.68	7189053.84	7189054.00	0.1943	0.0823
Mercury	14971-10-01 02:38 G	7189378.46	7189378.61	7189378.76	0.1586	0.0289

Mercury	14974-07-18 06:14 G	7190399.66	7190399.76	7190399.86	0.1951	0.1200
Mercury	14981-02-20 08:38 G	7192808.72	7192808.86	7192809.01	0.1586	0.0385
Mercury	14990-07-13 15:07 G	7196239.02	7196239.13	7196239.24	0.1586	0.1039
Mercury	14995-04-05 19:40 G	7197966.22	7197966.32	7197966.42	0.1950	0.1029

16TH MILLENNIUM CE

This is a list of transits visible from Mars in the 16th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	15001-11-09 21:07 G		7200375.27	7200375.38	7200375.49	0.1587	0.1071	
Venus	15001-12-04 17:02 G		7200400.04	7200400.21	7200400.38	0.1593	0.0250	
Mercury	15004-08-27 01:26 G		7201396.43	7201396.56	7201396.68	0.1951	0.0075	
Mercury	15011-04-02 03:07 G		7203805.48	7203805.63	7203805.77	0.1586	0.0387	
Mercury	15014-01-17 06:14 G		7204826.66	7204826.76	7204826.87	0.1951	0.1100	
Mercury	15020-08-22 09:07 G		7207235.73	7207235.88	7207236.03	0.1586	0.0285	
Earth	15029-08-12 05:31 G		7210512.69	7210512.73	7210512.78	0.1704	0.1646	
Mercury	15030-01-12 15:21 G		7210666.02	7210666.14	7210666.26	0.1586	0.0947	
Venus	15033-12-03 07:40 G		7212086.78	7212086.82	7212086.87	0.1596	0.1522	
Mercury	15034-10-05 19:55 G		7212393.23	7212393.33	7212393.43	0.1950	0.1139	
Venus	15035-10-03 15:50 G		7212756.04	7212756.16	7212756.28	0.1590	0.1158	
Venus	15036-09-07 09:21 G		7213095.71	7213095.89	7213096.06	0.1944	0.0188	
Mercury	15041-05-10 21:21 G		7214802.29	7214802.39	7214802.50	0.1587	0.1168	
Mercury	15044-02-26 01:12 G		7215823.43	7215823.55	7215823.68	0.1951	0.0093	
Mercury	15050-10-01 03:21 G		7218232.50	7218232.64	7218232.78	0.1586	0.0480	

Mercury	15053-07-18 06:43 G	7219253.67	7219253.78	7219253.89	0.1951	0.0980
Mercury	15060-02-21 09:21 G	7221662.75	7221662.89	7221663.04	0.1586	0.0199
Venus	15067-10-02 06:14 G	7224442.59	7224442.76	7224442.93	0.1592	0.0098
Mercury	15069-07-13 15:50 G	7225093.03	7225093.16	7225093.28	0.1586	0.0851
Mercury	15074-04-05 19:55 G	7226820.24	7226820.33	7226820.43	0.1950	0.1238
Mercury	15078-12-03 22:19 G	7228523.38	7228523.43	7228523.47	0.1586	0.1497
Mercury	15080-11-08 22:04 G	7229229.33	7229229.42	7229229.51	0.1587	0.1272
Mercury	15083-08-27 01:40 G	7230250.44	7230250.57	7230250.69	0.1951	0.0208
Mercury	15090-04-01 03:50 G	7232659.52	7232659.66	7232659.80	0.1586	0.0579
Mercury	15093-01-16 06:43 G	7233680.67	7233680.78	7233680.89	0.1951	0.0885
Mercury	15099-08-22 09:50 G	7236089.76	7236089.91	7236090.06	0.1586	0.0102
Venus	15099-09-30 20:38 G	7236129.27	7236129.36	7236129.44	0.1595	0.1361
Venus	15101-08-01 04:48 G	7236798.60	7236798.70	7236798.80	0.1589	0.1314
Venus	15102-07-06 10:19 G	7237137.75	7237137.93	7237138.10	0.1946	0.0460
Moon	15108-08-15 06:57 G	7239369.60	7239369.79	7239369.98	0.1700	0.0185
Earth	15108-08-15 13:40 G	7239369.88	7239370.07	7239370.26	0.1699	0.0101 *
Mercury	15109-01-12 16:04 G	7239520.04	7239520.17	7239520.30	0.1586	0.0761
Mercury	15113-10-05 20:09 G	7241247.25	7241247.34	7241247.43	0.1950	0.1347
Mercury	15118-06-04 22:33 G	7242950.38	7242950.44	7242950.51	0.1586	0.1408
Mercury	15120-05-10 22:19 G	7243656.36	7243656.43	7243656.51	0.1587	0.1368
Mercury	15123-02-26 01:40 G	7244677.45	7244677.57	7244677.70	0.1951	0.0308
Mercury	15129-10-01 04:04 G	7247086.54	7247086.67	7247086.81	0.1586	0.0678
Mercury	15132-07-18 06:57 G	7248107.67	7248107.79	7248107.90	0.1951	0.0774
Venus	15133-07-30 18:57 G	7248485.12	7248485.29	7248485.47	0.1592	0.0068
Mercury	15139-02-21 10:19 G	7250516.78	7250516.93	7250517.08	0.1586	0.0027
Mercury	15141-12-08 12:00 G	7251537.97	7251538.00	7251538.03	0.1950	0.1870
Mercury	15148-07-13 16:33 G	7253947.05	7253947.19	7253947.32	0.1586	0.0668
Mercury	15153-04-05 20:09 G	7255674.26	7255674.34	7255674.43	0.1950	0.1450
Mercury	15157-12-03 22:48 G	7257377.37	7257377.45	7257377.53	0.1586	0.1321
Mercury	15159-11-09 22:33 G	7258083.39	7258083.44	7258083.50	0.1587	0.1466

Mercury	15162-08-27 01:40 G	7259104.45	7259104.57	7259104.70	0.1951	0.0409
Venus	15165-07-29 09:36 G	7260171.78	7260171.90	7260172.01	0.1594	0.1205
Venus	15167-05-29 17:45 G	7260841.18	7260841.24	7260841.30	0.1589	0.1471
Venus	15168-05-02 11:02 G	7261179.81	7261179.96	7261180.10	0.1947	0.1119
Mercury	15169-04-01 04:33 G	7261513.56	7261513.69	7261513.82	0.1586	0.0771
Mercury	15172-01-17 07:12 G	7262534.68	7262534.80	7262534.91	0.1951	0.0664
Mercury	15178-08-22 10:33 G	7264943.79	7264943.94	7264944.09	0.1586	0.0098
Mercury	15181-06-08 12:14 G	7265964.96	7265965.01	7265965.06	0.1950	0.1760
Earth	15187-08-18 20:24 G	7268227.25	7268227.35	7268227.45	0.1694	0.1404
Moon	15187-08-18 20:38 G	7268227.25	7268227.36	7268227.47	0.1694	0.1412 *
Mercury	15188-01-12 16:48 G	7268374.06	7268374.20	7268374.34	0.1586	0.0572
Mercury	15192-10-04 20:24 G	7270101.28	7270101.35	7270101.42	0.1950	0.1553
Mercury	15197-06-03 23:16 G	7271804.38	7271804.47	7271804.56	0.1586	0.1224
Mercury	15199-05-10 23:02 G	7272510.45	7272510.46	7272510.48	0.1587	0.1569
Venus	15199-05-28 07:55 G	7272527.66	7272527.83	7272528.01	0.1591	0.0223
Mercury	15202-02-25 01:55 G	7273531.46	7273531.58	7273531.70	0.1951	0.0515
Mercury	15208-09-30 05:02 G	7275940.58	7275940.71	7275940.83	0.1586	0.0873
Mercury	15211-07-18 07:12 G	7276961.68	7276961.80	7276961.92	0.1951	0.0561
Earth	15213-02-14 11:16 G	7277538.77	7277538.97	7277539.17	0.1836	0.0263
Moon	15213-02-14 18:43 G	7277539.10	7277539.28	7277539.46	0.1836	0.0672 *
Mercury	15218-02-20 10:48 G	7279370.80	7279370.95	7279371.10	0.1586	0.0190
Mercury	15220-12-07 12:14 G	7280391.94	7280392.01	7280392.07	0.1951	0.1663
Mercury	15227-07-13 17:02 G	7282801.07	7282801.21	7282801.36	0.1586	0.0483
Venus	15231-05-26 22:19 G	7284214.30	7284214.43	7284214.56	0.1593	0.1044
Mercury	15232-04-04 20:24 G	7284528.29	7284528.35	7284528.42	0.1950	0.1658
Venus	15234-02-27 11:45 G	7285221.92	7285221.99	7285222.06	0.1948	0.1778
Mercury	15236-12-02 23:31 G	7286231.38	7286231.48	7286231.59	0.1586	0.1134
Mercury	15241-08-26 02:09 G	7287958.48	7287958.59	7287958.71	0.1951	0.0630
Mercury	15248-03-31 05:16 G	7290367.60	7290367.72	7290367.84	0.1586	0.0971
Mercury	15251-01-16 07:26 G	7291388.68	7291388.81	7291388.93	0.1951	0.0460

Mercury	15257-08-21 11:16 G	7293797.83	7293797.97	7293798.12	0.1586	0.0289
Mercury	15260-06-07 12:28 G	7294818.95	7294819.02	7294819.10	0.1951	0.1543
Venus	15265-03-24 20:52 G	7296570.20	7296570.37	7296570.54	0.1590	0.0382
Venus	15266-02-27 18:57 G	7296910.18	7296910.29	7296910.40	0.1944	0.1500
Mercury	15267-01-11 17:31 G	7297228.08	7297228.23	7297228.37	0.1586	0.0387
Mercury	15271-10-04 20:38 G	7298955.31	7298955.36	7298955.41	0.1950	0.1764
Mercury	15276-06-03 00:00 G	7300658.39	7300658.50	7300658.61	0.1586	0.1045
Mercury	15281-02-24 02:09 G	7302385.48	7302385.59	7302385.71	0.1951	0.0716
Mercury	15287-09-30 05:45 G	7304794.63	7304794.74	7304794.85	0.1586	0.1066
Mercury	15290-07-17 07:40 G	7305815.70	7305815.82	7305815.94	0.1951	0.0337
Mercury	15297-02-19 11:45 G	7308224.84	7308224.99	7308225.13	0.1586	0.0382
Venus	15297-03-23 11:16 G	7308256.83	7308256.97	7308257.12	0.1592	0.0888
Mercury	15299-12-07 12:43 G	7309245.94	7309246.03	7309246.11	0.1951	0.1443
Mercury	15306-07-13 18:00 G	7311655.10	7311655.25	7311655.39	0.1586	0.0290
Mercury	15311-04-05 20:52 G	7313382.33	7313382.37	7313382.40	0.1950	0.1863
Earth	15313-08-15 01:40 G	7314244.43	7314244.57	7314244.71	0.1711	0.1128
Moon	15313-08-15 08:24 G	7314244.71	7314244.85	7314244.99	0.1711	0.1119 *
Mercury	15315-12-04 00:14 G	7315085.40	7315085.51	7315085.63	0.1586	0.0949
Mercury	15320-08-26 02:24 G	7316812.49	7316812.60	7316812.72	0.1951	0.0838
Mercury	15327-04-01 06:00 G	7319221.65	7319221.75	7319221.86	0.1586	0.1165
Mercury	15330-01-16 07:40 G	7320242.70	7320242.82	7320242.94	0.1951	0.0246
Venus	15331-01-21 09:50 G	7320612.75	7320612.91	7320613.08	0.1589	0.0537
Venus	15331-12-26 19:40 G	7320952.16	7320952.32	7320952.48	0.1945	0.0852
Mercury	15336-08-21 12:00 G	7322651.86	7322652.00	7322652.14	0.1586	0.0475
Mercury	15339-06-08 12:43 G	7323672.94	7323673.03	7323673.12	0.1951	0.1334
Mercury	15346-01-11 18:14 G	7326082.11	7326082.26	7326082.41	0.1586	0.0197
Mercury	15355-06-04 00:43 G	7329512.40	7329512.53	7329512.65	0.1586	0.0857
Mercury	15360-02-25 02:38 G	7331239.50	7331239.61	7331239.72	0.1951	0.0937
Venus	15363-01-20 00:14 G	7332299.35	7332299.51	7332299.66	0.1592	0.0730
Mercury	15364-10-24 07:12 G	7332942.76	7332942.80	7332942.85	0.1586	0.1501

Mercury	15366-09-30 06:28 G	7333648.68	7333648.77	7333648.86	0.1586	0.1266
Mercury	15369-07-17 07:55 G	7334669.70	7334669.83	7334669.95	0.1951	0.0131
Mercury	15376-02-20 12:28 G	7337078.88	7337079.02	7337079.16	0.1586	0.0576
Mercury	15378-12-07 12:57 G	7338099.95	7338100.04	7338100.14	0.1951	0.1224
Mercury	15385-07-12 18:28 G	7340509.12	7340509.27	7340509.42	0.1586	0.0109
Earth	15392-08-17 10:04 G	7343101.73	7343101.92	7343102.10	0.1706	0.0448
Moon	15392-08-17 10:48 G	7343101.78	7343101.95	7343102.12	0.1706	0.0424 *
Mercury	15394-12-03 00:57 G	7343939.41	7343939.54	7343939.67	0.1586	0.0767
Venus	15396-11-17 22:48 G	7344655.30	7344655.45	7344655.61	0.1589	0.0695
Venus	15397-10-22 20:52 G	7344994.20	7344994.37	7344994.55	0.1947	0.0219
Mercury	15399-08-26 02:38 G	7345666.51	7345666.61	7345666.71	0.1951	0.1037
Mercury	15404-04-25 07:26 G	7347369.75	7347369.81	7347369.88	0.1586	0.1413
Mercury	15406-04-01 06:43 G	7348075.71	7348075.78	7348075.86	0.1586	0.1363
Mercury	15409-01-16 08:09 G	7349096.71	7349096.84	7349096.96	0.1951	0.0027
Mercury	15415-08-22 12:43 G	7351505.90	7351506.03	7351506.17	0.1586	0.0674
Mercury	15418-06-08 13:12 G	7352526.95	7352527.05	7352527.15	0.1951	0.1115
Mercury	15425-01-11 18:57 G	7354936.14	7354936.29	7354936.44	0.1586	0.0006
Venus	15428-11-17 13:12 G	7356341.89	7356342.05	7356342.21	0.1591	0.0572
Mercury	15434-06-04 01:26 G	7358366.42	7358366.56	7358366.69	0.1586	0.0671
Mercury	15439-02-25 02:52 G	7360093.52	7360093.62	7360093.72	0.1951	0.1149
Mercury	15443-10-25 07:55 G	7361796.75	7361796.83	7361796.90	0.1586	0.1324
Mercury	15445-09-30 07:12 G	7362502.75	7362502.80	7362502.86	0.1586	0.1464
Mercury	15448-07-17 08:09 G	7363523.72	7363523.84	7363523.97	0.1951	0.0082
Mercury	15455-02-20 12:57 G	7365932.91	7365933.04	7365933.18	0.1586	0.0766
Mercury	15457-12-07 13:12 G	7366953.95	7366954.05	7366954.16	0.1951	0.1015
Venus	15462-09-16 12:14 G	7368697.86	7368698.01	7368698.16	0.1588	0.0845
Venus	15463-08-20 21:50 G	7369036.23	7369036.41	7369036.58	0.1948	0.0448
Mercury	15464-07-12 19:12 G	7369363.15	7369363.30	7369363.45	0.1586	0.0102
Mercury	15473-12-03 01:40 G	7372793.43	7372793.57	7372793.71	0.1586	0.0576
Mercury	15478-08-26 03:07 G	7374520.53	7374520.63	7374520.72	0.1951	0.1258

Mercury	15483-04-25 08:09 G	7376223.75	7376223.84	7376223.93	0.1586	0.1228
Mercury	15485-03-31 07:40 G	7376929.80	7376929.82	7376929.84	0.1586	0.1563
Mercury	15488-01-16 08:24 G	7377950.72	7377950.85	7377950.97	0.1951	0.0192
Mercury	15494-08-21 13:26 G	7380359.94	7380360.06	7380360.19	0.1586	0.0871
Venus	15494-09-15 02:24 G	7380384.43	7380384.60	7380384.77	0.1590	0.0417
Moon	15497-02-16 02:52 G	7381269.40	7381269.62	7381269.83	0.1826	0.0249
Earth	15497-02-16 05:45 G	7381269.55	7381269.74	7381269.94	0.1826	0.0216 *
Mercury	15497-06-07 13:26 G	7381380.95	7381381.06	7381381.18	0.1951	0.0899
Mercury	15504-01-12 19:40 G	7383790.17	7383790.32	7383790.47	0.1585	0.0185
Mercury	15513-06-04 01:55 G	7387220.44	7387220.58	7387220.72	0.1586	0.0486
Mercury	15518-02-25 03:07 G	7388947.54	7388947.63	7388947.71	0.1951	0.1351
Mercury	15522-10-25 08:24 G	7390650.75	7390650.85	7390650.96	0.1586	0.1139
Mercury	15527-07-18 08:38 G	7392377.74	7392377.86	7392377.98	0.1951	0.0307
Venus	15528-07-15 00:57 G	7392740.41	7392740.54	7392740.68	0.1587	0.1005
Venus	15529-06-17 22:19 G	7393078.29	7393078.43	7393078.58	0.1949	0.1113
Mercury	15534-02-20 13:55 G	7394786.96	7394787.08	7394787.20	0.1586	0.0965
Mercury	15536-12-07 13:40 G	7395807.96	7395808.07	7395808.18	0.1951	0.0794
Mercury	15543-07-13 20:09 G	7398217.19	7398217.34	7398217.48	0.1585	0.0286
Mercury	15546-04-29 18:28 G	7399238.25	7399238.27	7399238.29	0.1951	0.1909
Mercury	15552-12-03 02:24 G	7401647.45	7401647.60	7401647.74	0.1585	0.0389
Mercury	15557-08-26 03:21 G	7403374.56	7403374.64	7403374.72	0.1951	0.1469
Venus	15560-07-13 15:07 G	7404426.96	7404427.13	7404427.30	0.1589	0.0253
Mercury	15562-04-25 08:52 G	7405077.76	7405077.87	7405077.98	0.1586	0.1049
Mercury	15567-01-16 08:38 G	7406804.74	7406804.86	7406804.98	0.1951	0.0397
Mercury	15573-08-21 14:09 G	7409213.98	7409214.09	7409214.20	0.1586	0.1062
Mercury	15576-06-07 13:55 G	7410234.96	7410235.08	7410235.19	0.1952	0.0683
Mercury	15583-01-11 20:24 G	7412644.20	7412644.35	7412644.49	0.1586	0.0378
Mercury	15585-10-28 18:43 G	7413665.23	7413665.28	7413665.33	0.1950	0.1795
Mercury	15592-06-03 02:38 G	7416074.47	7416074.61	7416074.76	0.1586	0.0295
Venus	15592-07-12 05:16 G	7416113.68	7416113.72	7416113.77	0.1592	0.1528

Venus	15594-05-12 14:09 G	7416782.98	7416783.09	7416783.21	0.1587	0.1159
Venus	15595-04-14 22:48 G	7417120.39	7417120.45	7417120.52	0.1950	0.1791
Mercury	15597-02-24 03:21 G	7417801.57	7417801.64	7417801.71	0.1951	0.1570
Moon	15597-08-17 18:43 G	7417976.08	7417976.28	7417976.47	0.1718	0.0581
Earth	15597-08-17 20:52 G	7417976.19	7417976.37	7417976.54	0.1718	0.0625 *
Mercury	15601-10-24 09:07 G	7419504.77	7419504.88	7419505.00	0.1586	0.0951
Mercury	15606-07-17 08:52 G	7421231.75	7421231.87	7421231.99	0.1952	0.0514
Mercury	15613-02-19 14:38 G	7423641.01	7423641.11	7423641.21	0.1586	0.1164
Mercury	15615-12-07 13:55 G	7424661.96	7424662.08	7424662.20	0.1951	0.0579
Mercury	15622-07-12 20:38 G	7427071.22	7427071.36	7427071.51	0.1585	0.0474
Mercury	15625-04-28 18:43 G	7428092.22	7428092.28	7428092.34	0.1951	0.1701
Venus	15626-05-11 04:19 G	7428469.51	7428469.68	7428469.86	0.1589	0.0104
Venus	15627-04-15 05:31 G	7428808.62	7428808.73	7428808.84	0.1946	0.1506
Mercury	15631-12-03 02:52 G	7430501.48	7430501.62	7430501.77	0.1586	0.0207
Mercury	15636-08-25 03:36 G	7432228.59	7432228.65	7432228.71	0.1951	0.1674
Mercury	15641-04-24 09:36 G	7433931.77	7433931.90	7433932.02	0.1586	0.0859
Mercury	15646-01-15 09:07 G	7435658.76	7435658.88	7435659.00	0.1952	0.0626
Mercury	15650-09-14 16:19 G	7437362.13	7437362.18	7437362.22	0.1586	0.1505
Mercury	15652-08-20 15:07 G	7438068.04	7438068.13	7438068.22	0.1586	0.1263
Mercury	15655-06-07 14:09 G	7439088.97	7439089.09	7439089.21	0.1951	0.0467
Venus	15658-05-09 18:14 G	7440156.18	7440156.26	7440156.35	0.1591	0.1370
Venus	15660-03-09 03:21 G	7440825.55	7440825.64	7440825.74	0.1587	0.1315
Mercury	15662-01-10 21:07 G	7441498.24	7441498.38	7441498.52	0.1585	0.0575
Mercury	15664-10-27 18:57 G	7442519.22	7442519.29	7442519.37	0.1951	0.1580
Mercury	15671-06-03 03:21 G	7444928.49	7444928.64	7444928.79	0.1585	0.0103
Mercury	15676-02-24 03:36 G	7446655.61	7446655.65	7446655.70	0.1951	0.1785
Earth	15676-08-20 05:45 G	7446833.59	7446833.74	7446833.90	0.1712	0.0991
Moon	15676-08-20 12:14 G	7446833.86	7446834.01	7446834.17	0.1712	0.1007 *
Mercury	15680-10-23 09:50 G	7448358.78	7448358.91	7448359.04	0.1586	0.0769
Mercury	15685-07-16 09:07 G	7450085.77	7450085.88	7450086.00	0.1951	0.0723

Mercury	15690-03-15 16:33 G	7451789.12	7451789.19	7451789.25	0.1586	0.1416
Mercury	15692-02-19 15:21 G	7452495.06	7452495.14	7452495.22	0.1586	0.1357
Venus	15692-03-07 17:02 G	7452512.04	7452512.21	7452512.39	0.1588	0.0072
Venus	15693-02-09 07:26 G	7452850.65	7452850.81	7452850.96	0.1948	0.0882
Mercury	15694-12-06 14:24 G	7453515.97	7453516.10	7453516.22	0.1952	0.0362
Mercury	15701-07-12 21:36 G	7455925.26	7455925.40	7455925.53	0.1585	0.0673
Mercury	15704-04-28 19:12 G	7456946.22	7456946.30	7456946.39	0.1951	0.1467
Mercury	15710-12-03 03:50 G	7459355.51	7459355.66	7459355.81	0.1585	0.0033
Mercury	15715-08-26 03:50 G	7461082.64	7461082.66	7461082.69	0.1951	0.1892
Mercury	15720-04-24 10:19 G	7462785.79	7462785.93	7462786.06	0.1586	0.0672
Venus	15724-03-07 07:26 G	7464198.70	7464198.81	7464198.92	0.1590	0.1214
Mercury	15725-01-15 09:21 G	7464512.77	7464512.89	7464513.00	0.1952	0.0835
Venus	15726-01-05 16:19 G	7464868.12	7464868.18	7464868.24	0.1586	0.1475
Mercury	15729-09-14 16:48 G	7466216.12	7466216.20	7466216.28	0.1586	0.1323
Mercury	15731-08-21 15:50 G	7466922.11	7466922.16	7466922.22	0.1585	0.1464
Mercury	15734-06-07 14:38 G	7467942.98	7467943.11	7467943.23	0.1951	0.0244
Mercury	15741-01-10 21:50 G	7470352.28	7470352.41	7470352.54	0.1585	0.0767
Mercury	15743-10-28 19:12 G	7471373.22	7471373.30	7471373.39	0.1951	0.1371
Mercury	15750-06-03 04:04 G	7473782.52	7473782.67	7473782.82	0.1585	0.0088
Venus	15758-01-04 06:28 G	7476554.59	7476554.77	7476554.94	0.1587	0.0216
Venus	15758-12-08 07:55 G	7476892.66	7476892.83	7476893.01	0.1949	0.0218
Mercury	15759-10-24 10:33 G	7477212.80	7477212.94	7477213.08	0.1586	0.0577
Mercury	15764-07-16 09:36 G	7478939.79	7478939.90	7478940.01	0.1952	0.0955
Mercury	15769-03-15 17:16 G	7480643.13	7480643.22	7480643.31	0.1586	0.1228
Mercury	15771-02-19 16:19 G	7481349.15	7481349.18	7481349.20	0.1586	0.1564
Mercury	15773-12-06 14:38 G	7482369.99	7482370.11	7482370.24	0.1951	0.0143
Mercury	15780-07-11 22:19 G	7484779.30	7484779.43	7484779.55	0.1585	0.0870
Moon	15781-02-17 19:55 G	7485000.14	7485000.33	7485000.51	0.1817	0.0110
Earth	15781-02-18 01:55 G	7485000.38	7485000.58	7485000.78	0.1817	0.0218 *
Mercury	15783-04-28 19:40 G	7485800.22	7485800.32	7485800.41	0.1951	0.1249

Mercury	15789-12-02 04:33 G	7488209.54	7488209.69	7488209.83	0.1585	0.0192
Venus	15790-01-02 20:24 G	7488241.22	7488241.35	7488241.48	0.1589	0.1058
Mercury	15799-04-24 10:48 G	7491639.81	7491639.95	7491640.09	0.1585	0.0485
Mercury	15804-01-16 09:36 G	7493366.79	7493366.90	7493367.00	0.1952	0.1045
Mercury	15808-09-14 17:31 G	7495070.13	7495070.23	7495070.33	0.1586	0.1137
Mercury	15813-06-07 14:52 G	7496797.00	7496797.12	7496797.25	0.1952	0.0029
Mercury	15820-01-11 22:33 G	7499206.32	7499206.44	7499206.56	0.1585	0.0967
Mercury	15822-10-28 19:55 G	7500227.23	7500227.33	7500227.43	0.1951	0.1134
Venus	15823-11-02 19:26 G	7500597.14	7500597.31	7500597.48	0.1587	0.0373
Venus	15824-10-05 09:21 G	7500934.71	7500934.89	7500935.06	0.1950	0.0439
Mercury	15829-06-03 04:48 G	7502636.55	7502636.70	7502636.85	0.1585	0.0285
Mercury	15838-10-24 11:16 G	7506066.83	7506066.97	7506067.11	0.1586	0.0384
Mercury	15843-07-17 09:50 G	7507793.81	7507793.91	7507794.01	0.1952	0.1164
Mercury	15848-03-15 17:45 G	7509497.13	7509497.24	7509497.35	0.1586	0.1046
Mercury	15852-12-06 15:07 G	7511224.00	7511224.13	7511224.25	0.1951	0.0090
Venus	15855-11-01 09:36 G	7512283.76	7512283.90	7512284.04	0.1589	0.0903
Mercury	15859-07-12 23:02 G	7513633.35	7513633.46	7513633.57	0.1585	0.1065
Mercury	15862-04-28 19:55 G	7514654.22	7514654.33	7514654.44	0.1951	0.1037
Mercury	15868-12-02 05:02 G	7517063.57	7517063.71	7517063.86	0.1585	0.0383
Mercury	15878-04-24 11:31 G	7520493.84	7520493.98	7520494.13	0.1586	0.0292
Moon	15881-08-20 09:21 G	7521707.71	7521707.89	7521708.08	0.1725	0.0077
Earth	15881-08-20 15:21 G	7521707.96	7521708.14	7521708.33	0.1725	0.0118 *
Mercury	15883-01-15 10:04 G	7522220.83	7522220.92	7522221.01	0.1952	0.1276
Mercury	15887-09-14 18:14 G	7523924.14	7523924.26	7523924.38	0.1586	0.0948
Venus	15889-08-30 08:52 G	7524639.70	7524639.87	7524640.03	0.1587	0.0524
Venus	15890-08-02 09:50 G	7524976.77	7524976.91	7524977.06	0.1951	0.1110
Mercury	15892-06-06 15:07 G	7525651.01	7525651.13	7525651.26	0.1951	0.0201
Mercury	15899-01-10 23:31 G	7528060.38	7528060.48	7528060.58	0.1585	0.1170
Mercury	15901-10-28 20:09 G	7529081.23	7529081.34	7529081.45	0.1951	0.0913
Mercury	15908-06-03 05:31 G	7531490.59	7531490.73	7531490.87	0.1585	0.0480

Mercury	15917-10-24 11:45 G	7534920.85	7534920.99	7534921.14	0.1585	0.0203
Venus	15921-08-29 22:48 G	7536326.30	7536326.45	7536326.61	0.1588	0.0750
Mercury	15922-07-17 10:04 G	7536647.83	7536647.92	7536648.01	0.1952	0.1375
Mercury	15927-03-16 18:28 G	7538351.15	7538351.27	7538351.40	0.1586	0.0856
Mercury	15931-12-07 15:21 G	7540078.02	7540078.14	7540078.27	0.1952	0.0306
Mercury	15936-08-06 01:12 G	7541781.51	7541781.55	7541781.60	0.1587	0.1503
Mercury	15938-07-12 23:45 G	7542487.40	7542487.49	7542487.58	0.1585	0.1269
Mercury	15941-04-28 20:24 G	7543508.24	7543508.35	7543508.47	0.1951	0.0800
Mercury	15947-12-03 06:00 G	7545917.61	7545917.75	7545917.89	0.1585	0.0580
Mercury	15950-09-19 00:57 G	7546938.54	7546938.54	7546938.55	0.1950	0.1943
Venus	15955-06-28 21:36 G	7548682.25	7548682.40	7548682.56	0.1586	0.0682
Venus	15956-05-30 10:33 G	7549018.88	7549018.94	7549019.01	0.1952	0.1787
Mercury	15957-04-24 12:14 G	7549347.87	7549348.01	7549348.16	0.1585	0.0106
Moon	15960-08-23 19:26 G	7550565.18	7550565.31	7550565.44	0.1719	0.1263
Earth	15960-08-24 01:40 G	7550565.49	7550565.57	7550565.65	0.1719	0.1549
Mercury	15962-01-15 10:19 G	7551074.85	7551074.93	7551075.01	0.1952	0.1489
Mercury	15966-09-14 18:57 G	7552778.16	7552778.29	7552778.42	0.1586	0.0762
Mercury	15971-06-07 15:36 G	7554505.03	7554505.15	7554505.27	0.1952	0.0416
Mercury	15976-02-05 01:26 G	7556208.50	7556208.56	7556208.63	0.1587	0.1415
Mercury	15978-01-11 00:00 G	7556914.43	7556914.50	7556914.58	0.1585	0.1366
Mercury	15980-10-27 20:24 G	7557935.24	7557935.35	7557935.47	0.1951	0.0703
Mercury	15987-06-03 06:14 G	7560344.63	7560344.76	7560344.90	0.1585	0.0675
Venus	15987-06-27 11:45 G	7560368.82	7560368.99	7560369.15	0.1588	0.0588
Venus	15988-05-30 17:45 G	7560707.14	7560707.24	7560707.35	0.1949	0.1562
Mercury	15990-03-20 01:26 G	7561365.51	7561365.56	7561365.60	0.1950	0.1824
Mercury	15996-10-23 12:43 G	7563774.88	7563775.03	7563775.18	0.1585	0.0018

17TH MILLENNIUM CE

This is a list of transits visible from Mars in the 17th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	16001-07-16 10:33	G	7565501.88	7565501.94	7565502.01	0.1952	0.1611	
Mercury	16006-03-15 19:12	G	7567205.17	7567205.30	7567205.44	0.1586	0.0664	
Mercury	16010-12-06 15:36	G	7568932.03	7568932.15	7568932.28	0.1952	0.0525	
Mercury	16015-08-06 01:55	G	7570635.50	7570635.58	7570635.66	0.1587	0.1317	
Mercury	16017-07-12 00:28	G	7571341.47	7571341.52	7571341.58	0.1585	0.1473	
Mercury	16020-04-27 20:52	G	7572362.25	7572362.37	7572362.49	0.1951	0.0579	
Venus	16021-04-25 11:02	G	7572724.82	7572724.96	7572725.11	0.1586	0.0835	
Mercury	16026-12-02 06:43	G	7574771.65	7574771.78	7574771.91	0.1585	0.0778	
Mercury	16029-09-18 01:26	G	7575792.51	7575792.56	7575792.62	0.1950	0.1716	
Mercury	16036-04-23 12:57	G	7578201.89	7578202.04	7578202.19	0.1585	0.0097	
Mercury	16041-01-14 10:33	G	7579928.88	7579928.94	7579929.00	0.1952	0.1700	
Mercury	16045-09-13 19:40	G	7581632.18	7581632.32	7581632.45	0.1586	0.0571	
Mercury	16050-06-06 16:04	G	7583359.05	7583359.17	7583359.28	0.1952	0.0643	
Venus	16053-04-24 01:12	G	7584411.38	7584411.55	7584411.72	0.1587	0.0437	
Venus	16054-03-27 18:28	G	7584749.11	7584749.27	7584749.42	0.1950	0.0888	
Mercury	16055-02-04 02:24	G	7585062.50	7585062.60	7585062.69	0.1587	0.1225	
Mercury	16057-01-10 00:57	G	7585768.53	7585768.54	7585768.55	0.1585	0.1572	
Mercury	16059-10-27 21:07	G	7586789.26	7586789.38	7586789.50	0.1951	0.0462	
Earth	16065-02-20 01:12	G	7588731.36	7588731.55	7588731.75	0.1808	0.0317	
Moon	16065-02-20 09:36	G	7588731.70	7588731.90	7588732.09	0.1808	0.0291	*
Mercury	16066-06-02 06:57	G	7589198.67	7589198.79	7589198.92	0.1585	0.0881	
Mercury	16069-03-19 01:40	G	7590219.50	7590219.57	7590219.64	0.1950	0.1605	

Mercury	16075-10-23 13:26 G	7592628.91	7592629.06	7592629.21	0.1585	0.0198
Mercury	16080-07-15 10:48 G	7594355.91	7594355.95	7594355.99	0.1952	0.1823
Mercury	16085-03-14 19:55 G	7596059.19	7596059.33	7596059.47	0.1586	0.0475
Earth	16086-08-19 23:16 G	7596582.35	7596582.47	7596582.59	0.1738	0.1307
Moon	16086-08-20 04:33 G	7596582.57	7596582.69	7596582.81	0.1737	0.1363 *
Venus	16087-02-21 00:14 G	7596767.38	7596767.51	7596767.65	0.1585	0.0990
Mercury	16089-12-05 16:04 G	7597786.06	7597786.17	7597786.29	0.1952	0.0747
Mercury	16094-08-05 02:38 G	7599489.51	7599489.61	7599489.71	0.1587	0.1131
Mercury	16099-04-27 21:07 G	7601216.26	7601216.38	7601216.50	0.1952	0.0362
Mercury	16105-12-02 07:26 G	7603625.69	7603625.81	7603625.93	0.1585	0.0977
Mercury	16108-09-18 02:09 G	7604646.50	7604646.59	7604646.67	0.1950	0.1477
Mercury	16115-04-24 13:40 G	7607055.93	7607056.07	7607056.22	0.1585	0.0298
Venus	16119-02-20 13:55 G	7608453.91	7608454.08	7608454.25	0.1587	0.0276
Mercury	16120-01-15 11:02 G	7608782.95	7608782.96	7608782.97	0.1952	0.1935
Venus	16120-01-23 20:09 G	7608791.17	7608791.34	7608791.52	0.1951	0.0255
Mercury	16124-09-13 20:24 G	7610486.20	7610486.35	7610486.49	0.1586	0.0374
Mercury	16129-06-06 16:19 G	7612213.07	7612213.18	7612213.29	0.1952	0.0859
Mercury	16134-02-04 02:52 G	7613916.51	7613916.62	7613916.73	0.1586	0.1035
Mercury	16138-10-27 21:21 G	7615643.27	7615643.39	7615643.52	0.1951	0.0242
Mercury	16145-06-02 07:40 G	7618052.72	7618052.82	7618052.93	0.1585	0.1078
Mercury	16148-03-19 02:09 G	7619073.50	7619073.59	7619073.68	0.1950	0.1380
Venus	16151-02-19 04:04 G	7620140.64	7620140.67	7620140.70	0.1588	0.1560
Venus	16152-12-19 13:26 G	7620809.94	7620810.06	7620810.18	0.1585	0.1146
Mercury	16154-10-23 14:09 G	7621482.94	7621483.09	7621483.23	0.1585	0.0391
Mercury	16164-03-14 20:38 G	7624913.21	7624913.36	7624913.51	0.1586	0.0279
Earth	16165-08-23 10:19 G	7625439.75	7625439.93	7625440.11	0.1732	0.0422
Moon	16165-08-23 15:50 G	7625440.00	7625440.16	7625440.33	0.1731	0.0663 *
Mercury	16168-12-05 16:33 G	7626640.08	7626640.19	7626640.30	0.1952	0.0975
Mercury	16173-08-05 03:21 G	7628343.52	7628343.64	7628343.76	0.1586	0.0939
Mercury	16178-04-27 21:36 G	7630070.28	7630070.40	7630070.53	0.1951	0.0129

Mercury	16182-12-26 10:19 G	7631773.92	7631773.93	7631773.93	0.1587	0.1586
Mercury	16184-12-01 08:09 G	7632479.75	7632479.84	7632479.94	0.1585	0.1183
Venus	16184-12-18 03:36 G	7632496.47	7632496.65	7632496.82	0.1586	0.0134
Venus	16185-11-19 20:52 G	7632833.20	7632833.37	7632833.54	0.1951	0.0421
Mercury	16187-09-18 02:24 G	7633500.50	7633500.60	7633500.70	0.1950	0.1256
Mercury	16194-04-23 14:38 G	7635909.97	7635910.11	7635910.25	0.1585	0.0497
Mercury	16203-09-14 20:52 G	7639340.23	7639340.37	7639340.52	0.1586	0.0189
Mercury	16208-06-06 16:48 G	7641067.09	7641067.20	7641067.30	0.1952	0.1085
Mercury	16213-02-04 03:36 G	7642770.53	7642770.65	7642770.77	0.1586	0.0848
Venus	16216-12-17 17:16 G	7644183.15	7644183.22	7644183.30	0.1587	0.1406
Mercury	16217-10-27 21:50 G	7644497.28	7644497.41	7644497.53	0.1952	0.0074
Venus	16218-10-18 02:52 G	7644852.53	7644852.62	7644852.72	0.1585	0.1296
Mercury	16222-06-27 10:33 G	7646200.89	7646200.94	7646200.99	0.1587	0.1493
Mercury	16224-06-02 08:38 G	7646906.77	7646906.86	7646906.94	0.1585	0.1281
Mercury	16227-03-20 02:38 G	7647927.51	7647927.61	7647927.71	0.1951	0.1136
Mercury	16233-10-23 14:52 G	7650336.98	7650337.12	7650337.26	0.1585	0.0595
Mercury	16243-03-15 21:21 G	7653767.24	7653767.39	7653767.54	0.1586	0.0084
Mercury	16247-12-06 16:48 G	7655494.10	7655494.20	7655494.30	0.1952	0.1191
Venus	16250-10-16 16:33 G	7656539.02	7656539.19	7656539.37	0.1586	0.0033
Venus	16251-09-17 22:19 G	7656875.28	7656875.43	7656875.57	0.1952	0.1081
Mercury	16252-08-05 04:04 G	7657197.54	7657197.67	7657197.80	0.1586	0.0747
Mercury	16257-04-27 22:04 G	7658924.29	7658924.42	7658924.54	0.1952	0.0104
Mercury	16261-12-26 10:48 G	7660627.89	7660627.95	7660628.02	0.1587	0.1403
Mercury	16263-12-02 08:52 G	7661333.80	7661333.87	7661333.95	0.1585	0.1385
Mercury	16266-09-18 02:52 G	7662354.51	7662354.62	7662354.72	0.1950	0.1031
Moon	16270-02-18 20:52 G	7663604.34	7663604.37	7663604.41	0.1791	0.1754
Mercury	16273-04-23 15:21 G	7664764.00	7664764.14	7664764.27	0.1585	0.0692
Mercury	16282-09-13 21:50 G	7668194.26	7668194.41	7668194.55	0.1586	0.0044
Venus	16282-10-15 06:43 G	7668225.68	7668225.78	7668225.89	0.1587	0.1256
Venus	16284-08-14 16:04 G	7668895.11	7668895.17	7668895.24	0.1585	0.1456

Mercury	16287-06-06 17:02 G	7669921.12	7669921.21	7669921.30	0.1952	0.1316
Mercury	16292-02-04 04:19 G	7671624.55	7671624.68	7671624.82	0.1586	0.0652
Mercury	16296-10-26 22:19 G	7673351.30	7673351.43	7673351.55	0.1951	0.0219
Mercury	16301-06-27 11:16 G	7675054.89	7675054.97	7675055.05	0.1587	0.1303
Mercury	16303-06-03 09:21 G	7675760.84	7675760.89	7675760.94	0.1585	0.1488
Mercury	16306-03-20 02:52 G	7676781.51	7676781.62	7676781.74	0.1951	0.0918
Mercury	16312-10-23 15:36 G	7679191.03	7679191.15	7679191.28	0.1585	0.0797
Venus	16316-08-14 06:00 G	7680581.58	7680581.75	7680581.92	0.1586	0.0179
Venus	16317-07-15 23:02 G	7680917.39	7680917.46	7680917.53	0.1952	0.1756
Mercury	16322-03-15 22:04 G	7682621.27	7682621.42	7682621.57	0.1586	0.0112
Mercury	16326-12-06 17:16 G	7684348.13	7684348.22	7684348.30	0.1952	0.1418
Mercury	16331-08-06 04:48 G	7686051.56	7686051.70	7686051.83	0.1586	0.0558
Mercury	16336-04-27 22:19 G	7687778.31	7687778.43	7687778.55	0.1952	0.0321
Mercury	16340-12-26 11:31 G	7689481.89	7689481.98	7689482.07	0.1587	0.1212
Mercury	16345-09-18 03:21 G	7691208.53	7691208.64	7691208.76	0.1951	0.0787
Venus	16348-08-12 19:55 G	7692268.21	7692268.33	7692268.46	0.1586	0.1102
Moon	16349-02-23 00:14 G	7692462.30	7692462.51	7692462.72	0.1799	0.0168
Earth	16349-02-23 03:36 G	7692462.46	7692462.65	7692462.84	0.1799	0.0485 *
Venus	16349-07-16 05:45 G	7692605.64	7692605.74	7692605.84	0.1951	0.1608
Mercury	16352-04-23 16:04 G	7693618.05	7693618.17	7693618.29	0.1585	0.0896
Mercury	16361-09-13 22:33 G	7697048.29	7697048.44	7697048.59	0.1586	0.0216
Mercury	16366-06-06 17:16 G	7698775.15	7698775.22	7698775.30	0.1952	0.1533
Moon	16370-08-23 09:50 G	7700313.77	7700313.91	7700314.06	0.1745	0.1126
Earth	16370-08-23 16:48 G	7700314.04	7700314.20	7700314.37	0.1745	0.0823 *
Mercury	16371-02-04 05:02 G	7700478.57	7700478.71	7700478.85	0.1586	0.0459
Mercury	16375-10-27 22:48 G	7702205.32	7702205.45	7702205.57	0.1952	0.0452
Mercury	16380-06-26 11:45 G	7703908.89	7703908.99	7703909.10	0.1587	0.1119
Venus	16382-06-11 18:57 G	7704624.12	7704624.29	7704624.46	0.1585	0.0339
Mercury	16385-03-19 03:21 G	7705635.52	7705635.64	7705635.76	0.1951	0.0690
Mercury	16391-10-23 16:19 G	7708045.07	7708045.18	7708045.30	0.1585	0.0995

Mercury	16394-08-09 08:09 G	7709065.80	7709065.84	7709065.88	0.1949	0.1825
Mercury	16401-03-14 22:48 G	7711475.31	7711475.45	7711475.60	0.1586	0.0312
Mercury	16405-12-05 17:45 G	7713202.17	7713202.24	7713202.30	0.1952	0.1650
Mercury	16410-08-05 05:31 G	7714905.58	7714905.73	7714905.87	0.1586	0.0361
Venus	16414-06-10 08:52 G	7716310.74	7716310.87	7716311.01	0.1586	0.0943
Mercury	16415-04-27 22:48 G	7716632.33	7716632.45	7716632.57	0.1952	0.0557
Venus	16415-05-13 06:57 G	7716647.64	7716647.79	7716647.95	0.1951	0.0952
Mercury	16419-12-26 12:14 G	7718335.90	7718336.01	7718336.12	0.1587	0.1018
Mercury	16424-09-17 03:50 G	7720062.54	7720062.66	7720062.78	0.1951	0.0566
Mercury	16431-04-23 16:48 G	7722472.10	7722472.20	7722472.31	0.1585	0.1100
Mercury	16434-02-07 08:24 G	7723492.79	7723492.85	7723492.90	0.1949	0.1715
Mercury	16440-09-12 23:02 G	7725902.32	7725902.46	7725902.61	0.1585	0.0412
Mercury	16445-06-05 17:45 G	7727629.19	7727629.24	7727629.29	0.1952	0.1756
Venus	16448-04-08 08:38 G	7728666.69	7728666.86	7728667.02	0.1585	0.0491
Earth	16449-08-26 04:48 G	7729171.54	7729171.70	7729171.86	0.1739	0.0958
Moon	16449-08-26 05:16 G	7729171.57	7729171.72	7729171.87	0.1739	0.1185 *
Mercury	16450-02-03 05:45 G	7729332.59	7729332.74	7729332.89	0.1586	0.0265
Mercury	16454-10-26 23:02 G	7731059.34	7731059.46	7731059.58	0.1952	0.0667
Mercury	16459-06-26 12:28 G	7732762.91	7732763.02	7732763.14	0.1587	0.0925
Mercury	16464-03-18 04:04 G	7734489.54	7734489.67	7734489.79	0.1951	0.0450
Mercury	16468-11-15 19:26 G	7736193.30	7736193.31	7736193.33	0.1588	0.1573
Mercury	16470-10-22 17:16 G	7736899.12	7736899.22	7736899.31	0.1585	0.1201
Mercury	16473-08-08 08:38 G	7737919.79	7737919.86	7737919.93	0.1949	0.1596
Mercury	16480-03-13 23:31 G	7740329.34	7740329.48	7740329.62	0.1585	0.0515
Venus	16480-04-06 22:33 G	7740353.29	7740353.44	7740353.59	0.1586	0.0793
Venus	16481-03-09 07:55 G	7740689.65	7740689.83	7740690.00	0.1952	0.0272
Mercury	16484-12-04 18:00 G	7742056.21	7742056.25	7742056.28	0.1952	0.1867
Mercury	16489-08-04 06:14 G	7743759.61	7743759.76	7743759.90	0.1586	0.0168
Mercury	16494-04-26 23:16 G	7745486.35	7745486.47	7745486.58	0.1952	0.0786
Mercury	16498-12-25 12:57 G	7747189.91	7747190.04	7747190.16	0.1587	0.0833

Mercury	16503-09-18 04:04 G	7748916.55	7748916.67	7748916.79	0.1951	0.0340
Mercury	16508-05-17 19:40 G	7750620.28	7750620.32	7750620.37	0.1588	0.1482
Mercury	16510-04-23 17:31 G	7751326.15	7751326.23	7751326.32	0.1585	0.1299
Mercury	16513-02-07 08:38 G	7752346.78	7752346.86	7752346.95	0.1950	0.1482
Venus	16514-02-04 21:36 G	7752709.25	7752709.40	7752709.56	0.1585	0.0647
Mercury	16519-09-14 00:00 G	7754756.36	7754756.50	7754756.64	0.1585	0.0613
Mercury	16529-02-03 06:28 G	7758186.62	7758186.77	7758186.92	0.1586	0.0069
Mercury	16533-10-26 23:31 G	7759913.37	7759913.48	7759913.59	0.1952	0.0901
Mercury	16538-06-26 13:12 G	7761616.92	7761617.05	7761617.18	0.1587	0.0731
Mercury	16543-03-19 04:19 G	7763343.55	7763343.68	7763343.80	0.1951	0.0222
Venus	16546-02-03 11:16 G	7764395.81	7764395.97	7764396.13	0.1585	0.0630
Venus	16547-01-05 09:21 G	7764731.72	7764731.89	7764732.06	0.1952	0.0380
Mercury	16547-11-16 20:09 G	7765047.27	7765047.34	7765047.41	0.1588	0.1387
Mercury	16549-10-22 18:00 G	7765753.18	7765753.25	7765753.32	0.1585	0.1406
Mercury	16552-08-08 09:07 G	7766773.79	7766773.88	7766773.97	0.1949	0.1360
Earth	16554-02-21 10:33 G	7767335.84	7767335.94	7767336.03	0.1783	0.1552
Moon	16554-02-21 16:19 G	7767336.04	7767336.18	7767336.31	0.1784	0.1197
Mercury	16559-03-15 00:14 G	7769183.38	7769183.51	7769183.64	0.1585	0.0710
Mercury	16568-08-04 06:57 G	7772613.64	7772613.79	7772613.93	0.1586	0.0057
Mercury	16573-04-26 23:31 G	7774340.37	7774340.48	7774340.59	0.1952	0.1006
Mercury	16577-12-25 13:40 G	7776043.93	7776044.07	7776044.20	0.1587	0.0637
Venus	16579-12-03 11:02 G	7776751.81	7776751.96	7776752.11	0.1585	0.0805
Mercury	16582-09-17 04:33 G	7777770.57	7777770.69	7777770.82	0.1951	0.0117
Mercury	16587-05-17 20:24 G	7779474.27	7779474.35	7779474.44	0.1588	0.1290
Mercury	16589-04-22 18:28 G	7780180.22	7780180.27	7780180.31	0.1585	0.1509
Mercury	16592-02-07 09:07 G	7781200.79	7781200.88	7781200.98	0.1949	0.1251
Mercury	16598-09-13 00:43 G	7783610.40	7783610.53	7783610.66	0.1585	0.0816
Mercury	16608-02-04 07:12 G	7787040.65	7787040.80	7787040.95	0.1586	0.0130
Venus	16611-12-03 00:57 G	7788438.37	7788438.54	7788438.70	0.1585	0.0481
Mercury	16612-10-26 23:45 G	7788767.39	7788767.49	7788767.59	0.1952	0.1130

Venus	16612-11-02 10:19 G	7788773.78	7788773.93	7788774.07	0.1952	0.1065
Mercury	16617-06-26 13:55 G	7790470.94	7790471.08	7790471.22	0.1587	0.0541
Mercury	16622-03-19 04:33 G	7792197.57	7792197.69	7792197.82	0.1951	0.0052
Mercury	16626-11-16 20:52 G	7793901.27	7793901.37	7793901.46	0.1588	0.1197
Mercury	16631-08-09 09:36 G	7795627.79	7795627.90	7795628.00	0.1950	0.1126
Moon	16633-02-25 02:24 G	7796193.42	7796193.60	7796193.78	0.1790	0.0354
Earth	16633-02-25 06:57 G	7796193.61	7796193.79	7796193.97	0.1790	0.0685 *
Mercury	16638-03-15 00:57 G	7798037.42	7798037.54	7798037.66	0.1585	0.0914
Venus	16645-10-01 00:28 G	7800794.38	7800794.52	7800794.66	0.1585	0.0955
Mercury	16647-08-05 07:40 G	7801467.67	7801467.82	7801467.96	0.1586	0.0234
Mercury	16652-04-27 00:00 G	7803194.40	7803194.50	7803194.60	0.1952	0.1238
Earth	16654-08-26 08:52 G	7804045.69	7804045.87	7804046.06	0.1752	0.0362
Moon	16654-08-26 08:52 G	7804045.71	7804045.87	7804046.04	0.1752	0.0578 *
Mercury	16656-12-25 14:24 G	7804897.95	7804898.10	7804898.24	0.1587	0.0441
Mercury	16661-09-17 05:02 G	7806624.58	7806624.71	7806624.83	0.1951	0.0135
Mercury	16666-05-17 21:07 G	7808328.28	7808328.38	7808328.48	0.1588	0.1103
Mercury	16671-02-07 09:36 G	7810054.79	7810054.90	7810055.01	0.1950	0.1018
Mercury	16677-09-13 01:26 G	7812464.44	7812464.56	7812464.67	0.1585	0.1014
Venus	16677-09-29 14:09 G	7812480.92	7812481.09	7812481.26	0.1585	0.0326
Venus	16678-08-30 11:16 G	7812815.89	7812815.97	7812816.05	0.1953	0.1738
Mercury	16687-02-03 07:55 G	7815894.68	7815894.83	7815894.97	0.1586	0.0329
Mercury	16691-10-27 00:14 G	7817621.42	7817621.51	7817621.59	0.1952	0.1353
Mercury	16696-06-25 14:38 G	7819324.97	7819325.11	7819325.25	0.1587	0.0344
Mercury	16701-03-19 05:16 G	7821051.59	7821051.72	7821051.84	0.1951	0.0250
Mercury	16705-11-16 21:21 G	7822755.28	7822755.39	7822755.51	0.1588	0.1006
Mercury	16710-08-09 09:50 G	7824481.80	7824481.91	7824482.03	0.1950	0.0898
Venus	16710-08-31 18:00 G	7824504.16	7824504.25	7824504.34	0.1952	0.1662
Venus	16711-07-30 13:26 G	7824836.94	7824837.06	7824837.18	0.1585	0.1120
Mercury	16717-03-15 01:55 G	7826891.47	7826891.58	7826891.68	0.1585	0.1120
Mercury	16726-08-05 08:24 G	7830321.70	7830321.85	7830321.99	0.1586	0.0433

Mercury	16731-04-28 00:14 G	7832048.43	7832048.51	7832048.60	0.1952	0.1467
Moon	16733-08-29 14:38 G	7832903.04	7832903.11	7832903.17	0.1746	0.1630
Earth	16733-08-29 21:50 G	7832903.31	7832903.41	7832903.51	0.1746	0.1473
Mercury	16735-12-26 14:52 G	7833751.97	7833752.12	7833752.26	0.1587	0.0250
Mercury	16740-09-17 05:16 G	7835478.60	7835478.72	7835478.84	0.1951	0.0351
Venus	16743-07-29 03:21 G	7836523.46	7836523.64	7836523.81	0.1585	0.0171
Mercury	16745-05-17 21:50 G	7837182.29	7837182.41	7837182.53	0.1588	0.0910
Mercury	16750-02-07 10:04 G	7838908.81	7838908.92	7838909.04	0.1950	0.0780
Mercury	16754-10-08 04:48 G	7840612.68	7840612.70	7840612.73	0.1589	0.1560
Mercury	16756-09-13 02:09 G	7841318.50	7841318.59	7841318.68	0.1585	0.1220
Mercury	16759-06-30 14:38 G	7842339.10	7842339.11	7842339.12	0.1948	0.1937
Mercury	16766-02-03 08:38 G	7844748.72	7844748.86	7844749.00	0.1586	0.0530
Mercury	16770-10-27 00:28 G	7846475.45	7846475.52	7846475.59	0.1952	0.1579
Mercury	16775-06-26 15:21 G	7848178.99	7848179.14	7848179.28	0.1586	0.0148
Venus	16775-07-27 17:02 G	7848210.15	7848210.21	7848210.28	0.1585	0.1458
Venus	16776-06-27 18:43 G	7848546.13	7848546.28	7848546.43	0.1952	0.0976
Venus	16777-05-27 02:52 G	7848879.52	7848879.62	7848879.72	0.1585	0.1274
Mercury	16780-03-18 05:31 G	7849905.61	7849905.73	7849905.85	0.1951	0.0470
Mercury	16784-11-15 22:04 G	7851609.29	7851609.42	7851609.54	0.1587	0.0815
Mercury	16789-08-08 10:19 G	7853335.81	7853335.93	7853336.05	0.1950	0.0664
Mercury	16794-04-08 05:02 G	7855039.66	7855039.71	7855039.77	0.1589	0.1469
Mercury	16796-03-14 02:24 G	7855745.52	7855745.60	7855745.68	0.1585	0.1318
Mercury	16798-12-29 14:38 G	7856766.07	7856766.11	7856766.15	0.1948	0.1836
Mercury	16805-08-04 08:52 G	7859175.74	7859175.87	7859176.01	0.1586	0.0630
Venus	16809-05-25 16:33 G	7860566.01	7860566.19	7860566.36	0.1584	0.0040
Mercury	16810-04-27 00:43 G	7860902.47	7860902.53	7860902.59	0.1953	0.1689
Mercury	16814-12-25 15:36 G	7862606.00	7862606.15	7862606.30	0.1587	0.0050
Mercury	16819-09-17 05:45 G	7864332.62	7864332.74	7864332.86	0.1951	0.0599
Mercury	16824-05-16 22:33 G	7866036.31	7866036.44	7866036.57	0.1587	0.0717
Mercury	16829-02-06 10:33 G	7867762.81	7867762.94	7867763.06	0.1950	0.0557

Mercury	16833-10-07 05:31 G	7869466.66	7869466.73	7869466.80	0.1589	0.1373
Mercury	16835-09-13 02:52 G	7870172.56	7870172.62	7870172.68	0.1585	0.1426
Earth	16838-02-23 16:48 G	7871067.06	7871067.20	7871067.34	0.1775	0.1257
Moon	16838-02-23 20:09 G	7871067.16	7871067.34	7871067.52	0.1775	0.0931 *
Mercury	16838-06-29 15:07 G	7871193.07	7871193.13	7871193.19	0.1948	0.1703
Venus	16841-05-24 06:14 G	7872252.67	7872252.76	7872252.86	0.1585	0.1301
Venus	16842-04-24 19:55 G	7872588.15	7872588.33	7872588.50	0.1952	0.0305
Venus	16843-03-24 15:50 G	7872922.09	7872922.16	7872922.23	0.1585	0.1438
Mercury	16845-02-02 09:21 G	7873602.76	7873602.89	7873603.02	0.1586	0.0729
Mercury	16849-10-26 00:57 G	7875329.49	7875329.54	7875329.58	0.1952	0.1808
Mercury	16854-06-25 15:50 G	7877033.01	7877033.16	7877033.31	0.1586	0.0052
Mercury	16859-03-18 05:45 G	7878759.62	7878759.74	7878759.86	0.1952	0.0690
Moon	16859-08-25 06:57 G	7878919.72	7878919.79	7878919.87	0.1767	0.1641
Mercury	16863-11-15 22:48 G	7880463.31	7880463.45	7880463.58	0.1587	0.0622
Mercury	16868-08-07 10:48 G	7882189.83	7882189.95	7882190.07	0.1950	0.0427
Mercury	16873-04-07 05:45 G	7883893.66	7883893.74	7883893.83	0.1589	0.1277
Mercury	16875-03-14 03:21 G	7884599.60	7884599.64	7884599.67	0.1585	0.1526
Venus	16875-03-23 05:45 G	7884608.57	7884608.74	7884608.91	0.1585	0.0146
Mercury	16877-12-28 15:21 G	7885620.07	7885620.14	7885620.21	0.1948	0.1592
Mercury	16884-08-03 09:50 G	7888029.78	7888029.91	7888030.03	0.1586	0.0835
Mercury	16889-04-26 00:57 G	7889756.52	7889756.54	7889756.56	0.1952	0.1914
Mercury	16893-12-24 16:19 G	7891460.03	7891460.18	7891460.33	0.1586	0.0149
Mercury	16898-09-16 06:14 G	7893186.64	7893186.76	7893186.87	0.1952	0.0821
Mercury	16903-05-17 23:02 G	7894890.32	7894890.46	7894890.60	0.1587	0.0527
Venus	16907-03-22 19:40 G	7896295.20	7896295.32	7896295.44	0.1585	0.1146
Mercury	16908-02-07 10:48 G	7896616.83	7896616.95	7896617.08	0.1950	0.0327
Venus	16908-02-20 20:24 G	7896630.18	7896630.35	7896630.52	0.1953	0.0397
Mercury	16912-10-07 06:00 G	7898320.66	7898320.75	7898320.85	0.1589	0.1185
Earth	16917-02-27 11:31 G	7899924.81	7899924.98	7899925.14	0.1782	0.0904
Moon	16917-02-27 19:40 G	7899925.15	7899925.32	7899925.50	0.1782	0.0791

Mercury	16917-06-29 15:21 G	7900047.06	7900047.14	7900047.23	0.1949	0.1480
Mercury	16924-02-03 10:04 G	7902456.80	7902456.92	7902457.04	0.1586	0.0931
Mercury	16933-06-25 16:33 G	7905887.05	7905887.19	7905887.34	0.1586	0.0246
Mercury	16938-03-18 06:14 G	7907613.65	7907613.76	7907613.87	0.1952	0.0933
Earth	16938-08-28 22:19 G	7907777.24	7907777.43	7907777.62	0.1760	0.0048
Moon	16938-08-29 05:16 G	7907777.52	7907777.72	7907777.91	0.1759	0.0120 *
Venus	16941-01-18 18:43 G	7908651.11	7908651.28	7908651.46	0.1585	0.0308
Mercury	16942-11-15 23:31 G	7909317.34	7909317.48	7909317.62	0.1587	0.0426
Mercury	16947-08-08 11:02 G	7911043.84	7911043.96	7911044.09	0.1950	0.0212
Mercury	16952-04-07 06:28 G	7912747.66	7912747.77	7912747.87	0.1588	0.1088
Mercury	16956-12-28 15:36 G	7914474.06	7914474.15	7914474.24	0.1948	0.1359
Mercury	16963-08-04 10:19 G	7916883.82	7916883.93	7916884.04	0.1585	0.1032
Mercury	16972-12-24 16:48 G	7920314.06	7920314.20	7920314.35	0.1586	0.0344
Venus	16973-01-17 08:24 G	7920337.72	7920337.85	7920337.99	0.1585	0.0982
Venus	16973-12-17 21:50 G	7920672.26	7920672.41	7920672.55	0.1953	0.1061
Mercury	16977-09-16 06:28 G	7922040.66	7922040.77	7922040.87	0.1952	0.1039
Mercury	16982-05-16 23:45 G	7923744.34	7923744.49	7923744.63	0.1587	0.0331
Mercury	16987-02-06 11:16 G	7925470.85	7925470.97	7925471.10	0.1951	0.0096
Mercury	16991-10-07 06:43 G	7927174.67	7927174.78	7927174.89	0.1589	0.0992
Mercury	16996-06-28 15:50 G	7928901.07	7928901.16	7928901.26	0.1948	0.1241

18TH MILLENNIUM CE

This is a list of transits visible from Mars in the 18th millennium CE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Mercury	17003-02-03 10:48 G	7931310.84	7931310.95	7931311.05	0.1586	0.1135
Venus	17006-11-17 08:09 G	7932693.67	7932693.84	7932694.00	0.1585	0.0467
Mercury	17012-06-25 17:16 G	7934741.08	7934741.22	7934741.36	0.1586	0.0446
Mercury	17017-03-18 06:43 G	7936467.68	7936467.78	7936467.88	0.1952	0.1160
Mercury	17021-11-16 00:00 G	7938171.35	7938171.50	7938171.64	0.1587	0.0235
Mercury	17026-08-08 11:31 G	7939897.85	7939897.98	7939898.11	0.1950	0.0028
Mercury	17031-04-08 06:57 G	7941601.67	7941601.79	7941601.91	0.1588	0.0900
Mercury	17035-12-29 16:04 G	7943328.06	7943328.17	7943328.27	0.1949	0.1135
Venus	17038-11-15 21:50 G	7944380.27	7944380.41	7944380.56	0.1585	0.0831
Venus	17039-10-15 22:33 G	7944714.36	7944714.44	7944714.51	0.1952	0.1762
Mercury	17040-08-28 14:09 G	7945032.06	7945032.09	7945032.11	0.1590	0.1552
Mercury	17042-08-04 11:02 G	7945737.87	7945737.96	7945738.05	0.1585	0.1236
Mercury	17051-12-25 17:31 G	7949168.09	7949168.23	7949168.37	0.1586	0.0546
Mercury	17056-09-16 06:57 G	7950894.69	7950894.79	7950894.88	0.1952	0.1279
Mercury	17061-05-17 00:28 G	7952598.37	7952598.52	7952598.66	0.1587	0.0141
Mercury	17066-02-06 11:31 G	7954324.86	7954324.98	7954325.11	0.1951	0.0156
Mercury	17070-10-07 07:12 G	7956028.68	7956028.80	7956028.93	0.1588	0.0803
Venus	17071-10-16 05:16 G	7956402.63	7956402.72	7956402.81	0.1953	0.1676
Venus	17072-09-13 21:21 G	7956736.23	7956736.39	7956736.55	0.1585	0.0624
Mercury	17075-06-29 16:19 G	7957755.07	7957755.18	7957755.29	0.1949	0.1004
Mercury	17080-02-27 14:09 G	7959459.04	7959459.09	7959459.15	0.1590	0.1462
Mercury	17082-02-02 11:16 G	7960164.90	7960164.97	7960165.05	0.1585	0.1337
Mercury	17091-06-25 17:45 G	7963595.11	7963595.24	7963595.38	0.1586	0.0643
Mercury	17096-03-17 06:43 G	7965321.70	7965321.78	7965321.87	0.1952	0.1376
Mercury	17100-11-16 00:43 G	7967025.38	7967025.53	7967025.67	0.1587	0.0050
Venus	17104-09-13 10:48 G	7968422.80	7968422.95	7968423.11	0.1584	0.0669
Mercury	17105-08-08 12:00 G	7968751.87	7968752.00	7968752.12	0.1951	0.0269
Mercury	17110-04-08 07:40 G	7970455.69	7970455.82	7970455.95	0.1588	0.0705
Mercury	17114-12-29 16:33 G	7972182.07	7972182.19	7972182.30	0.1949	0.0895

Mercury	17119-08-29 14:38 G	7973886.04	7973886.11	7973886.18	0.1590	0.1362
Mercury	17121-08-04 11:45 G	7974591.93	7974591.99	7974592.05	0.1585	0.1442
Moon	17122-02-26 16:33 G	7974798.03	7974798.19	7974798.35	0.1766	0.0885
Earth	17122-02-26 23:45 G	7974798.33	7974798.49	7974798.66	0.1766	0.0950 *
Mercury	17130-12-25 18:14 G	7978022.13	7978022.26	7978022.39	0.1586	0.0745
Mercury	17135-09-17 07:12 G	7979748.72	7979748.80	7979748.88	0.1952	0.1504
Venus	17137-08-13 06:00 G	7980444.60	7980444.75	7980444.90	0.1953	0.0984
Venus	17138-07-13 10:19 G	7980778.78	7980778.93	7980779.08	0.1585	0.0793
Mercury	17140-05-17 00:57 G	7981452.39	7981452.54	7981452.69	0.1587	0.0060
Moon	17143-08-28 14:24 G	7982650.99	7982651.10	7982651.21	0.1775	0.1403
Earth	17143-08-28 19:55 G	7982651.24	7982651.33	7982651.42	0.1775	0.1552
Mercury	17145-02-06 12:00 G	7983178.88	7983179.00	7983179.12	0.1951	0.0369
Mercury	17149-10-07 07:55 G	7984882.69	7984882.83	7984882.96	0.1588	0.0612
Mercury	17154-06-29 16:33 G	7986609.08	7986609.19	7986609.31	0.1949	0.0781
Mercury	17159-02-27 14:52 G	7988313.04	7988313.12	7988313.21	0.1590	0.1271
Mercury	17161-02-02 12:00 G	7989018.97	7989019.00	7989019.03	0.1585	0.1540
Mercury	17170-06-25 18:28 G	7992449.15	7992449.27	7992449.40	0.1586	0.0847
Venus	17170-07-12 00:00 G	7992465.34	7992465.50	7992465.67	0.1584	0.0509
Mercury	17175-03-18 07:26 G	7994175.74	7994175.81	7994175.87	0.1952	0.1616
Mercury	17179-11-16 01:26 G	7995879.41	7995879.56	7995879.70	0.1587	0.0169
Mercury	17184-08-07 12:14 G	7997605.89	7997606.01	7997606.13	0.1951	0.0490
Mercury	17189-04-07 08:09 G	7999309.70	7999309.84	7999309.98	0.1588	0.0513
Mercury	17193-12-28 16:48 G	8001036.08	8001036.20	8001036.32	0.1949	0.0662
Mercury	17198-08-28 15:07 G	8002740.04	8002740.13	8002740.23	0.1590	0.1178
Moon	17201-03-01 13:55 G	8003655.91	8003656.08	8003656.26	0.1773	0.0919
Earth	17201-03-01 16:48 G	8003656.06	8003656.20	8003656.35	0.1773	0.1139 *
Mercury	17203-05-20 21:07 G	8004466.34	8004466.38	8004466.42	0.1947	0.1849
Venus	17203-06-10 06:28 G	8004486.60	8004486.77	8004486.95	0.1953	0.0278
Venus	17204-05-09 23:45 G	8004821.35	8004821.49	8004821.63	0.1585	0.0948
Mercury	17209-12-24 18:57 G	8006876.17	8006876.29	8006876.40	0.1586	0.0944

Mercury	17214-09-16 07:26 G	8008602.75	8008602.81	8008602.86	0.1952	0.1722
Mercury	17219-05-17 01:40 G	8010306.42	8010306.57	8010306.71	0.1587	0.0261
Moon	17222-08-31 04:33 G	8011508.49	8011508.69	8011508.89	0.1769	0.0106
Earth	17222-08-31 10:19 G	8011508.75	8011508.93	8011509.12	0.1768	0.0428 *
Mercury	17224-02-06 12:28 G	8012032.90	8012033.02	8012033.14	0.1951	0.0610
Mercury	17228-10-06 08:24 G	8013736.71	8013736.85	8013736.99	0.1588	0.0417
Mercury	17233-06-28 17:02 G	8015463.09	8015463.21	8015463.34	0.1949	0.0544
Venus	17236-05-08 13:12 G	8016507.88	8016508.05	8016508.22	0.1584	0.0349
Mercury	17238-02-26 15:36 G	8017167.04	8017167.15	8017167.25	0.1590	0.1080
Mercury	17242-11-18 21:21 G	8018893.34	8018893.39	8018893.45	0.1947	0.1723
Mercury	17249-06-24 19:12 G	8021303.19	8021303.30	8021303.41	0.1586	0.1048
Mercury	17254-03-17 07:40 G	8023029.78	8023029.82	8023029.86	0.1952	0.1842
Mercury	17258-11-15 01:55 G	8024733.43	8024733.58	8024733.72	0.1587	0.0356
Mercury	17263-08-07 12:28 G	8026459.91	8026460.02	8026460.14	0.1951	0.0720
Mercury	17268-04-06 08:38 G	8028163.72	8028163.86	8028164.01	0.1588	0.0324
Venus	17269-04-06 07:26 G	8028528.64	8028528.81	8028528.98	0.1952	0.0414
Venus	17270-03-07 12:28 G	8028863.90	8028864.02	8028864.14	0.1585	0.1119
Mercury	17272-12-27 17:16 G	8029890.09	8029890.22	8029890.34	0.1949	0.0436
Mercury	17277-08-27 15:50 G	8031594.04	8031594.16	8031594.27	0.1590	0.0984
Mercury	17282-05-19 21:50 G	8033320.34	8033320.41	8033320.48	0.1947	0.1598
Mercury	17288-12-23 19:40 G	8035730.22	8035730.32	8035730.42	0.1586	0.1149
Mercury	17298-05-16 02:09 G	8039160.45	8039160.59	8039160.74	0.1587	0.0462
Venus	17302-03-07 02:24 G	8040550.42	8040550.60	8040550.77	0.1585	0.0191
Mercury	17303-02-06 12:43 G	8040886.92	8040887.03	8040887.14	0.1951	0.0832
Mercury	17307-10-07 09:07 G	8042590.73	8042590.88	8042591.02	0.1588	0.0222
Mercury	17312-06-28 17:31 G	8044317.10	8044317.23	8044317.36	0.1949	0.0305
Mercury	17317-02-26 16:04 G	8046021.05	8046021.17	8046021.29	0.1589	0.0893
Mercury	17321-11-18 21:50 G	8047747.33	8047747.41	8047747.49	0.1947	0.1498
Mercury	17326-07-19 23:16 G	8049451.44	8049451.47	8049451.50	0.1591	0.1546
Mercury	17328-06-24 19:55 G	8050157.24	8050157.33	8050157.42	0.1586	0.1247

Venus	17334-03-05 16:04 G	8052237.12	8052237.17	8052237.23	0.1584	0.1491
Venus	17335-02-02 07:55 G	8052570.69	8052570.83	8052570.97	0.1952	0.1120
Venus	17336-01-04 01:40 G	8052906.47	8052906.57	8052906.68	0.1586	0.1278
Mercury	17337-11-15 02:38 G	8053587.47	8053587.61	8053587.75	0.1587	0.0559
Mercury	17342-08-07 12:57 G	8055313.94	8055314.04	8055314.15	0.1951	0.0965
Mercury	17347-04-07 09:21 G	8057017.75	8057017.89	8057018.04	0.1588	0.0124
Mercury	17351-12-28 17:31 G	8058744.11	8058744.23	8058744.36	0.1949	0.0206
Mercury	17356-08-27 16:19 G	8060448.06	8060448.18	8060448.31	0.1589	0.0792
Mercury	17361-05-19 22:04 G	8062174.33	8062174.42	8062174.51	0.1947	0.1368
Mercury	17366-01-17 23:31 G	8063878.42	8063878.48	8063878.53	0.1591	0.1454
Mercury	17367-12-24 20:09 G	8064584.27	8064584.34	8064584.42	0.1586	0.1354
Venus	17368-01-02 15:36 G	8064592.97	8064593.15	8064593.32	0.1585	0.0037
Mercury	17377-05-16 02:52 G	8068014.48	8068014.62	8068014.75	0.1587	0.0656
Mercury	17382-02-05 12:57 G	8069740.94	8069741.04	8069741.15	0.1951	0.1060
Mercury	17386-10-06 09:36 G	8071444.76	8071444.90	8071445.05	0.1588	0.0038
Mercury	17391-06-28 17:45 G	8073171.12	8073171.24	8073171.37	0.1950	0.0088
Mercury	17396-02-26 16:33 G	8074875.06	8074875.19	8074875.32	0.1589	0.0698
Venus	17400-01-01 05:02 G	8076279.62	8076279.71	8076279.81	0.1584	0.1327
Mercury	17400-11-18 22:19 G	8076601.33	8076601.43	8076601.53	0.1947	0.1245
Venus	17400-11-30 09:21 G	8076612.82	8076612.89	8076612.96	0.1952	0.1791
Venus	17401-11-01 14:52 G	8076949.05	8076949.12	8076949.19	0.1586	0.1442
Mercury	17405-07-20 00:00 G	8078305.42	8078305.50	8078305.57	0.1591	0.1354
Earth	17406-03-01 07:26 G	8078529.63	8078529.81	8078529.99	0.1758	0.0634
Moon	17406-03-01 12:43 G	8078529.85	8078530.03	8078530.20	0.1758	0.0448 *
Mercury	17407-06-25 20:38 G	8079011.30	8079011.36	8079011.41	0.1586	0.1456
Mercury	17416-11-15 03:21 G	8082441.51	8082441.64	8082441.76	0.1587	0.0763
Mercury	17421-08-07 13:12 G	8084167.95	8084168.05	8084168.15	0.1951	0.1185
Mercury	17426-04-07 09:50 G	8085871.77	8085871.91	8085872.06	0.1588	0.0088
Earth	17427-08-31 05:02 G	8086382.58	8086382.71	8086382.85	0.1783	0.1271
Moon	17427-08-31 12:28 G	8086382.86	8086383.02	8086383.17	0.1783	0.0932

Mercury	17430-12-28 18:00 G	8087598.12	8087598.25	8087598.38	0.1949	0.0044
Venus	17432-11-30 16:19 G	8088301.09	8088301.18	8088301.27	0.1953	0.1677
Venus	17433-10-31 04:48 G	8088635.52	8088635.70	8088635.87	0.1585	0.0135
Mercury	17435-08-28 17:02 G	8089302.07	8089302.21	8089302.34	0.1589	0.0603
Mercury	17440-05-19 22:19 G	8091028.33	8091028.43	8091028.54	0.1947	0.1143
Mercury	17445-01-18 00:00 G	8092732.42	8092732.50	8092732.59	0.1591	0.1263
Mercury	17446-12-24 20:52 G	8093438.35	8093438.37	8093438.40	0.1586	0.1555
Mercury	17456-05-16 03:36 G	8096868.52	8096868.65	8096868.77	0.1587	0.0860
Mercury	17461-02-05 13:26 G	8098594.97	8098595.06	8098595.16	0.1951	0.1306
Mercury	17465-10-06 10:19 G	8100298.79	8100298.93	8100299.08	0.1588	0.0176
Venus	17465-10-29 18:28 G	8100322.16	8100322.27	8100322.39	0.1584	0.1176
Mercury	17470-06-28 18:14 G	8102025.13	8102025.26	8102025.39	0.1949	0.0158
Mercury	17475-02-26 17:16 G	8103729.08	8103729.22	8103729.36	0.1589	0.0501
Mercury	17479-11-18 22:48 G	8105455.34	8105455.45	8105455.56	0.1947	0.1013
Mercury	17484-07-19 00:14 G	8107159.42	8107159.51	8107159.61	0.1591	0.1169
Moon	17485-03-03 19:55 G	8107387.21	8107387.33	8107387.45	0.1764	0.1323
Earth	17485-03-03 23:45 G	8107387.37	8107387.49	8107387.60	0.1765	0.1407 *
Mercury	17495-11-15 03:50 G	8111295.54	8111295.66	8111295.78	0.1587	0.0959
Venus	17498-09-27 16:48 G	8112343.05	8112343.20	8112343.35	0.1953	0.0969
Venus	17499-08-28 18:00 G	8112678.08	8112678.25	8112678.42	0.1585	0.0294
Mercury	17500-08-07 13:40 G	8113021.98	8113022.07	8113022.15	0.1951	0.1412
Mercury	17505-04-07 10:33 G	8114725.80	8114725.94	8114726.09	0.1588	0.0273
Moon	17506-09-03 20:24 G	8115240.19	8115240.35	8115240.52	0.1776	0.0638
Earth	17506-09-03 21:07 G	8115240.21	8115240.38	8115240.55	0.1776	0.0785 *
Mercury	17509-12-28 18:28 G	8116452.14	8116452.27	8116452.39	0.1950	0.0280
Mercury	17514-08-28 17:31 G	8118156.09	8118156.23	8118156.37	0.1589	0.0404
Mercury	17519-05-20 23:02 G	8119882.35	8119882.46	8119882.57	0.1947	0.0889
Mercury	17524-01-19 00:43 G	8121586.42	8121586.53	8121586.63	0.1591	0.1069
Venus	17531-08-28 07:26 G	8124364.68	8124364.81	8124364.95	0.1584	0.1011
Mercury	17535-05-17 04:19 G	8125722.57	8125722.68	8125722.79	0.1586	0.1067

Mercury	17540-02-06 13:40 G	8127449.00	8127449.07	8127449.15	0.1951	0.1530
Mercury	17544-10-06 10:48 G	8129152.81	8129152.95	8129153.10	0.1588	0.0376
Mercury	17549-06-28 18:43 G	8130879.15	8130879.28	8130879.40	0.1950	0.0398
Mercury	17554-02-26 17:45 G	8132583.10	8132583.24	8132583.38	0.1589	0.0310
Mercury	17558-11-18 23:02 G	8134309.34	8134309.46	8134309.58	0.1948	0.0786
Mercury	17563-07-20 00:57 G	8136013.43	8136013.54	8136013.65	0.1591	0.0974
Venus	17564-07-25 17:31 G	8136385.06	8136385.23	8136385.41	0.1953	0.0273
Venus	17565-06-26 06:57 G	8136720.62	8136720.79	8136720.95	0.1585	0.0465
Mercury	17574-11-15 04:33 G	8140149.59	8140149.69	8140149.79	0.1587	0.1167
Mercury	17579-08-07 14:09 G	8141876.02	8141876.09	8141876.15	0.1952	0.1659
Mercury	17584-04-06 11:16 G	8143579.83	8143579.97	8143580.11	0.1588	0.0476
Mercury	17588-12-27 18:43 G	8145306.16	8145306.28	8145306.40	0.1950	0.0507
Mercury	17593-08-27 18:14 G	8147010.11	8147010.26	8147010.40	0.1589	0.0208
Venus	17597-06-24 20:38 G	8148407.22	8148407.36	8148407.51	0.1584	0.0853
Mercury	17598-05-19 23:16 G	8148736.35	8148736.47	8148736.59	0.1948	0.0656
Mercury	17603-01-18 01:12 G	8150440.43	8150440.55	8150440.67	0.1591	0.0879
Mercury	17607-10-10 03:36 G	8152166.61	8152166.65	8152166.68	0.1945	0.1856
Mercury	17612-06-09 08:24 G	8153870.82	8153870.85	8153870.89	0.1592	0.1538
Mercury	17614-05-16 04:48 G	8154576.61	8154576.70	8154576.79	0.1586	0.1267
Mercury	17619-02-05 14:09 G	8156303.03	8156303.09	8156303.14	0.1951	0.1756
Mercury	17623-10-06 11:31 G	8158006.84	8158006.98	8158007.12	0.1588	0.0574
Mercury	17628-06-27 18:57 G	8159733.17	8159733.29	8159733.41	0.1950	0.0631
Venus	17630-05-22 18:00 G	8160427.07	8160427.25	8160427.42	0.1952	0.0454
Venus	17631-04-23 20:24 G	8160763.19	8160763.35	8160763.51	0.1586	0.0621
Mercury	17633-02-25 18:28 G	8161437.12	8161437.27	8161437.42	0.1589	0.0108
Mercury	17637-11-17 23:45 G	8163163.36	8163163.49	8163163.61	0.1948	0.0534
Mercury	17642-07-19 01:40 G	8164867.44	8164867.57	8164867.69	0.1591	0.0777
Mercury	17647-04-10 03:36 G	8166593.60	8166593.65	8166593.71	0.1945	0.1740
Mercury	17651-12-09 08:38 G	8168297.81	8168297.86	8168297.92	0.1592	0.1442
Mercury	17653-11-14 05:16 G	8169003.65	8169003.72	8169003.79	0.1586	0.1374

Mercury	17658-08-06 14:24 G	8170730.07	8170730.10	8170730.13	0.1952	0.1883
Mercury	17663-04-06 11:45 G	8172433.86	8172433.99	8172434.13	0.1588	0.0677
Venus	17663-04-22 09:50 G	8172449.76	8172449.91	8172450.07	0.1585	0.0692
Mercury	17667-12-27 19:12 G	8174160.18	8174160.30	8174160.42	0.1950	0.0747
Mercury	17672-08-26 18:43 G	8175864.14	8175864.28	8175864.43	0.1589	0.0020
Mercury	17677-05-18 23:45 G	8177590.36	8177590.49	8177590.61	0.1948	0.0430
Mercury	17682-01-17 01:55 G	8179294.45	8179294.58	8179294.71	0.1591	0.0684
Mercury	17686-10-09 04:04 G	8181020.60	8181020.67	8181020.74	0.1945	0.1605
Earth	17690-03-02 16:48 G	8182261.01	8182261.20	8182261.39	0.1750	0.0282
Moon	17690-03-02 20:24 G	8182261.14	8182261.35	8182261.56	0.1750	0.0188 *
Mercury	17691-06-09 09:07 G	8182724.80	8182724.88	8182724.95	0.1592	0.1344
Mercury	17693-05-15 05:31 G	8183430.68	8183430.73	8183430.78	0.1586	0.1476
Venus	17696-03-18 19:12 G	8184469.16	8184469.30	8184469.44	0.1951	0.1135
Venus	17697-02-18 09:07 G	8184805.73	8184805.88	8184806.03	0.1586	0.0793
Mercury	17702-10-06 12:14 G	8186860.88	8186861.01	8186861.14	0.1588	0.0782
Mercury	17707-06-28 19:26 G	8188587.20	8188587.31	8188587.42	0.1950	0.0866
Moon	17711-09-02 13:55 G	8190113.90	8190114.08	8190114.26	0.1792	0.0858
Earth	17711-09-02 14:09 G	8190113.93	8190114.09	8190114.25	0.1792	0.0994 *
Mercury	17712-02-26 19:12 G	8190291.15	8190291.30	8190291.44	0.1589	0.0100
Mercury	17716-11-18 00:00 G	8192017.37	8192017.50	8192017.63	0.1948	0.0295
Mercury	17721-07-19 02:09 G	8193721.45	8193721.59	8193721.72	0.1590	0.0587
Mercury	17726-04-10 04:04 G	8195447.59	8195447.67	8195447.75	0.1945	0.1499
Venus	17729-02-17 23:02 G	8196492.30	8196492.46	8196492.62	0.1585	0.0530
Mercury	17730-12-09 09:21 G	8197151.80	8197151.89	8197151.98	0.1592	0.1250
Mercury	17732-11-14 05:45 G	8197857.73	8197857.74	8197857.75	0.1586	0.1578
Mercury	17742-04-06 12:28 G	8201287.90	8201288.02	8201288.14	0.1587	0.0881
Mercury	17746-12-27 19:40 G	8203014.21	8203014.32	8203014.42	0.1950	0.0986
Mercury	17751-08-27 19:26 G	8204718.16	8204718.31	8204718.46	0.1589	0.0193
Mercury	17756-05-19 00:14 G	8206444.38	8206444.51	8206444.64	0.1948	0.0174
Mercury	17761-01-17 02:24 G	8208148.47	8208148.60	8208148.74	0.1590	0.0485

Venus	17762-01-14 19:40 G	8208511.27	8208511.32	8208511.38	0.1950	0.1843
Venus	17762-12-17 22:33 G	8208848.30	8208848.44	8208848.58	0.1587	0.0952
Mercury	17765-10-09 04:33 G	8209874.60	8209874.69	8209874.78	0.1945	0.1371
Earth	17769-03-06 08:52 G	8211118.85	8211118.87	8211118.90	0.1757	0.1733
Mercury	17770-06-09 09:36 G	8211578.80	8211578.90	8211579.00	0.1592	0.1152
Mercury	17781-10-05 12:57 G	8215714.92	8215715.04	8215715.15	0.1587	0.0984
Mercury	17786-06-27 19:55 G	8217441.22	8217441.33	8217441.43	0.1950	0.1107
Earth	17790-09-05 06:43 G	8218971.63	8218971.78	8218971.93	0.1785	0.1128
Moon	17790-09-05 14:38 G	8218971.97	8218972.11	8218972.26	0.1784	0.1145
Mercury	17791-02-25 19:40 G	8219145.18	8219145.32	8219145.46	0.1589	0.0290
Venus	17794-01-15 03:21 G	8220199.56	8220199.64	8220199.73	0.1953	0.1685
Venus	17794-12-16 12:28 G	8220534.85	8220535.02	8220535.18	0.1585	0.0372
Mercury	17795-11-18 00:14 G	8220871.39	8220871.51	8220871.64	0.1948	0.0083
Mercury	17800-07-19 02:38 G	8222575.47	8222575.61	8222575.76	0.1590	0.0389
Mercury	17805-04-10 04:48 G	8224301.60	8224301.70	8224301.80	0.1946	0.1244
Mercury	17809-12-09 09:50 G	8226005.81	8226005.91	8226006.02	0.1592	0.1054
Mercury	17821-04-06 13:12 G	8230141.95	8230142.05	8230142.16	0.1587	0.1089
Mercury	17825-12-27 19:55 G	8231868.23	8231868.33	8231868.43	0.1950	0.1220
Venus	17828-10-15 11:45 G	8232890.87	8232890.99	8232891.11	0.1587	0.1116
Mercury	17830-08-27 20:09 G	8233572.20	8233572.34	8233572.48	0.1589	0.0398
Mercury	17835-05-20 00:43 G	8235298.40	8235298.53	8235298.66	0.1948	0.0073
Mercury	17840-01-18 03:07 G	8237002.48	8237002.63	8237002.77	0.1590	0.0292
Mercury	17844-10-09 04:48 G	8238728.60	8238728.70	8238728.81	0.1945	0.1130
Mercury	17849-06-09 10:19 G	8240432.81	8240432.93	8240433.04	0.1592	0.0959
Venus	17859-11-13 04:33 G	8244241.54	8244241.69	8244241.84	0.1953	0.0985
Mercury	17860-10-05 13:40 G	8244568.97	8244569.07	8244569.16	0.1587	0.1192
Venus	17860-10-14 01:40 G	8244577.40	8244577.57	8244577.74	0.1586	0.0212
Mercury	17865-06-27 20:09 G	8246295.25	8246295.34	8246295.43	0.1951	0.1350
Mercury	17870-02-25 20:24 G	8247999.21	8247999.35	8247999.49	0.1589	0.0498
Mercury	17874-11-18 00:57 G	8249725.41	8249725.54	8249725.67	0.1948	0.0192

Mercury	17879-07-19 03:21 G	8251429.50	8251429.64	8251429.79	0.1590	0.0186
Mercury	17884-04-09 05:02 G	8253155.60	8253155.71	8253155.82	0.1946	0.1009
Mercury	17888-12-08 10:33 G	8254859.82	8254859.94	8254860.06	0.1592	0.0860
Venus	17892-10-12 15:36 G	8256264.11	8256264.15	8256264.19	0.1584	0.1535
Venus	17894-08-13 00:57 G	8256933.44	8256933.54	8256933.64	0.1588	0.1279
Mercury	17898-04-30 17:45 G	8258290.20	8258290.24	8258290.28	0.1594	0.1522
Mercury	17900-04-06 13:55 G	8258996.00	8258996.08	8258996.16	0.1587	0.1295
Mercury	17904-12-27 20:24 G	8260722.27	8260722.35	8260722.43	0.1950	0.1462
Mercury	17909-08-27 20:38 G	8262426.23	8262426.36	8262426.50	0.1589	0.0599
Mercury	17914-05-20 00:57 G	8264152.41	8264152.54	8264152.67	0.1949	0.0299
Mercury	17919-01-18 03:36 G	8265856.51	8265856.65	8265856.80	0.1590	0.0090
Mercury	17923-10-10 05:31 G	8267582.62	8267582.73	8267582.84	0.1946	0.0871
Venus	17925-09-10 05:02 G	8268283.54	8268283.71	8268283.89	0.1952	0.0273
Venus	17926-08-12 14:52 G	8268619.95	8268620.12	8268620.30	0.1586	0.0066
Mercury	17928-06-09 10:48 G	8269286.83	8269286.95	8269287.08	0.1592	0.0759
Mercury	17937-10-30 18:14 G	8272717.20	8272717.26	8272717.32	0.1594	0.1421
Mercury	17939-10-06 14:24 G	8273423.03	8273423.10	8273423.16	0.1587	0.1404
Mercury	17944-06-27 20:38 G	8275149.29	8275149.36	8275149.43	0.1950	0.1582
Mercury	17949-02-25 21:07 G	8276853.25	8276853.38	8276853.51	0.1588	0.0703
Mercury	17953-11-18 01:26 G	8278579.43	8278579.56	8278579.68	0.1948	0.0437
Mercury	17958-07-19 04:04 G	8280283.52	8280283.67	8280283.81	0.1590	0.0047
Venus	17958-08-11 04:33 G	8280306.60	8280306.69	8280306.77	0.1585	0.1370
Venus	17960-06-10 13:55 G	8280976.02	8280976.08	8280976.15	0.1588	0.1447
Mercury	17963-04-10 05:31 G	8282009.61	8282009.73	8282009.85	0.1946	0.0765
Mercury	17967-12-09 11:02 G	8283713.83	8283713.96	8283714.09	0.1592	0.0663
Moon	17974-03-05 21:36 G	8285992.21	8285992.40	8285992.59	0.1741	0.0120
Earth	17974-03-06 05:02 G	8285992.52	8285992.71	8285992.90	0.1742	0.0133 *
Mercury	17977-04-30 18:28 G	8287144.19	8287144.27	8287144.35	0.1594	0.1325
Mercury	17979-04-06 14:38 G	8287850.07	8287850.11	8287850.15	0.1587	0.1505
Mercury	17983-12-27 20:52 G	8289576.31	8289576.37	8289576.43	0.1951	0.1706

Mercury	17988-08-26 21:21 G	8291280.27	8291280.39	8291280.52	0.1589	0.0808
Venus	17991-07-08 06:14 G	8292325.58	8292325.76	8292325.93	0.1951	0.0425
Venus	17992-06-09 04:04 G	8292662.49	8292662.67	8292662.84	0.1586	0.0118
Mercury	17993-05-19 01:26 G	8293006.44	8293006.56	8293006.69	0.1948	0.0559
Moon	17995-09-04 16:19 G	8293845.02	8293845.18	8293845.34	0.1800	0.0859
Earth	17995-09-04 22:19 G	8293845.26	8293845.43	8293845.61	0.1800	0.0733 *
Mercury	17998-01-17 04:19 G	8294710.54	8294710.68	8294710.83	0.1590	0.0121

19TH MILLENNIUM CE

This is a list of transits visible from Mars in the 19th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	18002-10-09 06:00 G		8296436.63	8296436.75	8296436.87	0.1946	0.0633	
Mercury	18007-06-09 11:31 G		8298140.84	8298140.98	8298141.11	0.1592	0.0562	
Mercury	18012-02-29 10:04 G		8299866.88	8299866.92	8299866.96	0.1943	0.1840	
Mercury	18016-10-29 18:43 G		8301571.19	8301571.28	8301571.37	0.1594	0.1231	
Mercury	18023-06-27 21:07 G		8304003.34	8304003.38	8304003.42	0.1950	0.1825	
Venus	18024-06-07 18:00 G		8304349.14	8304349.25	8304349.36	0.1585	0.1215	
Mercury	18028-02-25 21:36 G		8305707.28	8305707.40	8305707.52	0.1588	0.0909	
Mercury	18032-11-17 01:40 G		8307433.45	8307433.57	8307433.69	0.1949	0.0668	
Mercury	18037-07-18 04:33 G		8309137.55	8309137.69	8309137.84	0.1590	0.0224	
Mercury	18042-04-09 06:14 G		8310863.63	8310863.76	8310863.88	0.1946	0.0506	
Mercury	18046-12-08 11:45 G		8312567.85	8312567.99	8312568.13	0.1592	0.0460	
Mercury	18051-08-30 10:19 G		8314293.87	8314293.93	8314293.99	0.1943	0.1713	

Mercury	18056-04-29 19:12 G	8315998.20	8315998.30	8315998.40	0.1593	0.1129
Venus	18057-05-04 06:43 G	8316367.64	8316367.78	8316367.92	0.1950	0.1143
Venus	18058-04-06 17:31 G	8316705.06	8316705.23	8316705.40	0.1587	0.0274
Mercury	18062-12-26 21:07 G	8318430.38	8318430.38	8318430.39	0.1951	0.1943
Mercury	18067-08-26 22:04 G	8320134.31	8320134.42	8320134.53	0.1588	0.1016
Mercury	18072-05-18 01:55 G	8321860.47	8321860.58	8321860.70	0.1949	0.0798
Moon	18074-09-07 11:16 G	8322702.85	8322702.97	8322703.09	0.1794	0.1439
Earth	18074-09-07 16:48 G	8322703.10	8322703.20	8322703.31	0.1793	0.1484
Mercury	18077-01-16 05:02 G	8323564.56	8323564.71	8323564.85	0.1590	0.0322
Mercury	18081-10-08 06:14 G	8325290.64	8325290.76	8325290.89	0.1946	0.0396
Mercury	18086-06-08 12:00 G	8326994.86	8326995.00	8326995.14	0.1592	0.0363
Venus	18090-04-05 07:12 G	8328391.67	8328391.80	8328391.93	0.1585	0.1054
Mercury	18091-02-28 10:33 G	8328720.87	8328720.94	8328721.01	0.1943	0.1593
Mercury	18095-10-29 19:26 G	8330425.20	8330425.31	8330425.42	0.1594	0.1031
Mercury	18107-02-25 22:19 G	8334561.33	8334561.43	8334561.54	0.1588	0.1121
Mercury	18111-11-18 02:09 G	8336287.48	8336287.59	8336287.70	0.1949	0.0922
Mercury	18116-07-18 05:16 G	8337991.58	8337991.72	8337991.86	0.1590	0.0427
Mercury	18121-04-09 06:28 G	8339717.65	8339717.77	8339717.90	0.1946	0.0272
Venus	18123-03-02 08:24 G	8340409.79	8340409.85	8340409.91	0.1949	0.1818
Venus	18124-02-03 06:14 G	8340747.60	8340747.76	8340747.93	0.1587	0.0447
Mercury	18125-12-08 12:28 G	8341421.87	8341422.02	8341422.16	0.1591	0.0262
Mercury	18130-08-30 10:48 G	8343147.87	8343147.95	8343148.04	0.1943	0.1461
Mercury	18135-04-30 19:40 G	8344852.20	8344852.32	8344852.43	0.1593	0.0934
Mercury	18146-08-26 22:48 G	8348988.36	8348988.45	8348988.54	0.1588	0.1222
Mercury	18151-05-19 02:24 G	8350714.49	8350714.60	8350714.70	0.1949	0.1034
Venus	18155-03-02 15:36 G	8352098.07	8352098.15	8352098.23	0.1952	0.1716
Mercury	18156-01-17 05:31 G	8352418.60	8352418.73	8352418.87	0.1590	0.0530
Venus	18156-02-01 20:24 G	8352434.21	8352434.35	8352434.49	0.1586	0.0895
Mercury	18160-10-08 06:57 G	8354144.66	8354144.79	8354144.92	0.1946	0.0131
Mercury	18165-06-08 12:43 G	8355848.89	8355849.03	8355849.18	0.1591	0.0157

Mercury	18170-02-28 11:02 G	8357574.87	8357574.96	8357575.05	0.1943	0.1344
Mercury	18174-10-29 19:55 G	8359279.21	8359279.33	8359279.45	0.1593	0.0832
Earth	18179-03-05 04:48 G	8360866.58	8360866.70	8360866.83	0.1728	0.1319
Moon	18179-03-05 12:00 G	8360866.86	8360867.00	8360867.15	0.1729	0.1126
Mercury	18184-03-21 03:07 G	8362709.59	8362709.63	8362709.68	0.1596	0.1503
Mercury	18186-02-24 23:02 G	8363415.38	8363415.46	8363415.54	0.1588	0.1329
Venus	18189-11-30 19:55 G	8364790.17	8364790.33	8364790.49	0.1588	0.0605
Mercury	18190-11-17 02:38 G	8365141.51	8365141.61	8365141.71	0.1949	0.1167
Mercury	18195-07-18 06:00 G	8366845.61	8366845.75	8366845.88	0.1590	0.0630
Mercury	18200-04-09 06:57 G	8368571.66	8368571.79	8368571.92	0.1946	0.0038
Mercury	18204-12-08 12:57 G	8370275.90	8370276.04	8370276.19	0.1591	0.0065
Mercury	18209-08-30 11:16 G	8372001.87	8372001.97	8372002.08	0.1944	0.1214
Mercury	18214-04-30 20:09 G	8373706.22	8373706.34	8373706.47	0.1593	0.0734
Venus	18220-12-28 16:33 G	8376140.04	8376140.19	8376140.34	0.1952	0.1018
Venus	18221-11-30 09:50 G	8376476.75	8376476.91	8376477.06	0.1586	0.0736
Mercury	18223-09-21 03:36 G	8377136.59	8377136.65	8377136.72	0.1595	0.1398
Mercury	18225-08-26 23:31 G	8377842.42	8377842.48	8377842.54	0.1588	0.1437
Mercury	18230-05-19 02:52 G	8379568.53	8379568.62	8379568.71	0.1949	0.1286
Mercury	18235-01-17 06:14 G	8381272.63	8381272.76	8381272.89	0.1590	0.0738
Mercury	18239-10-09 07:26 G	8382998.68	8382998.81	8382998.94	0.1947	0.0118
Mercury	18244-06-08 13:26 G	8384702.91	8384703.06	8384703.20	0.1591	0.0067
Mercury	18249-02-28 11:31 G	8386428.88	8386428.98	8386429.09	0.1943	0.1092
Mercury	18253-10-29 20:24 G	8388133.22	8388133.35	8388133.49	0.1593	0.0638
Venus	18255-09-29 09:07 G	8388832.72	8388832.88	8388833.03	0.1589	0.0773
Earth	18258-03-08 18:43 G	8389724.10	8389724.28	8389724.46	0.1734	0.0574
Moon	18258-03-08 22:04 G	8389724.25	8389724.42	8389724.60	0.1735	0.0463 *
Mercury	18263-03-22 03:50 G	8391563.58	8391563.66	8391563.74	0.1595	0.1304
Mercury	18265-02-24 23:45 G	8392269.46	8392269.49	8392269.52	0.1588	0.1539
Mercury	18269-11-17 02:52 G	8393995.54	8393995.62	8393995.71	0.1949	0.1406
Mercury	18274-07-18 06:43 G	8395699.65	8395699.78	8395699.90	0.1590	0.0840

Mercury	18279-04-09 07:40 G	8397425.69	8397425.82	8397425.95	0.1947	0.0239
Earth	18279-09-07 05:02 G	8397576.52	8397576.71	8397576.89	0.1809	0.0509
Moon	18279-09-07 11:45 G	8397576.82	8397576.99	8397577.17	0.1808	0.0468 *
Mercury	18283-12-08 13:40 G	8399129.93	8399130.07	8399130.22	0.1591	0.0151
Venus	18286-10-25 17:45 G	8400182.07	8400182.24	8400182.41	0.1951	0.0316
Venus	18287-09-27 23:02 G	8400519.30	8400519.46	8400519.63	0.1587	0.0575
Mercury	18288-08-29 12:00 G	8400855.88	8400856.00	8400856.11	0.1943	0.0965
Mercury	18293-04-29 20:52 G	8402560.23	8402560.37	8402560.51	0.1593	0.0531
Mercury	18302-09-21 04:04 G	8405990.58	8405990.67	8405990.76	0.1595	0.1207
Mercury	18309-05-19 03:21 G	8408422.56	8408422.64	8408422.71	0.1949	0.1531
Mercury	18314-01-17 06:57 G	8410126.67	8410126.79	8410126.90	0.1589	0.0940
Mercury	18318-10-09 07:40 G	8411852.70	8411852.82	8411852.95	0.1947	0.0358
Venus	18321-07-27 22:04 G	8412875.28	8412875.42	8412875.56	0.1589	0.0939
Mercury	18323-06-09 13:55 G	8413556.94	8413557.08	8413557.23	0.1591	0.0253
Mercury	18328-02-29 12:14 G	8415282.89	8415283.01	8415283.12	0.1944	0.0840
Mercury	18332-10-29 21:07 G	8416987.24	8416987.38	8416987.52	0.1593	0.0432
Mercury	18342-03-22 04:33 G	8420417.59	8420417.69	8420417.79	0.1595	0.1104
Mercury	18348-11-17 03:36 G	8422849.58	8422849.65	8422849.71	0.1949	0.1655
Venus	18352-08-22 18:28 G	8424224.09	8424224.27	8424224.44	0.1950	0.0401
Mercury	18353-07-18 07:26 G	8424553.70	8424553.81	8424553.91	0.1589	0.1051
Venus	18353-07-26 12:14 G	8424561.84	8424562.01	8424562.18	0.1587	0.0411
Mercury	18358-04-09 08:09 G	8426279.71	8426279.84	8426279.96	0.1947	0.0486
Mercury	18362-12-08 14:24 G	8427983.95	8427984.10	8427984.24	0.1591	0.0356
Mercury	18367-08-30 12:28 G	8429709.90	8429710.02	8429710.14	0.1944	0.0711
Mercury	18372-04-29 21:21 G	8431414.25	8431414.39	8431414.53	0.1593	0.0335
Mercury	18381-09-20 04:48 G	8434844.59	8434844.70	8434844.81	0.1595	0.1008
Venus	18387-05-25 11:16 G	8436917.85	8436917.97	8436918.10	0.1590	0.1107
Mercury	18388-05-18 03:36 G	8437276.60	8437276.65	8437276.70	0.1950	0.1770
Mercury	18393-01-16 07:40 G	8438980.72	8438980.82	8438980.92	0.1589	0.1154
Mercury	18397-10-08 08:24 G	8440706.73	8440706.85	8440706.97	0.1947	0.0618

Mercury	18402-06-08 14:38 G	8442410.97	8442411.11	8442411.25	0.1591	0.0459
Mercury	18407-02-28 12:28 G	8444136.90	8444137.02	8444137.15	0.1944	0.0596
Mercury	18411-10-29 21:50 G	8445841.26	8445841.41	8445841.55	0.1593	0.0232
Mercury	18416-07-20 16:48 G	8447567.15	8447567.20	8447567.24	0.1941	0.1799
Venus	18418-06-19 19:40 G	8448266.17	8448266.32	8448266.46	0.1948	0.1099
Venus	18419-05-24 01:26 G	8448604.39	8448604.56	8448604.74	0.1587	0.0245
Mercury	18421-03-21 05:02 G	8449271.59	8449271.71	8449271.83	0.1595	0.0909
Mercury	18427-11-17 04:04 G	8451703.64	8451703.67	8451703.69	0.1949	0.1903
Mercury	18430-08-11 12:28 G	8452702.00	8452702.02	8452702.04	0.1597	0.1575
Mercury	18432-07-17 07:55 G	8453407.74	8453407.83	8453407.92	0.1589	0.1256
Mercury	18437-04-08 08:24 G	8455133.73	8455133.85	8455133.97	0.1947	0.0719
Mercury	18441-12-07 14:52 G	8456837.99	8456838.12	8456838.26	0.1591	0.0560
Mercury	18446-08-29 12:57 G	8458563.91	8458564.04	8458564.16	0.1944	0.0457
Mercury	18451-04-29 22:04 G	8460268.28	8460268.42	8460268.57	0.1593	0.0127
Venus	18453-03-22 00:28 G	8460960.42	8460960.52	8460960.62	0.1591	0.1278
Mercury	18456-01-19 17:02 G	8461994.14	8461994.21	8461994.27	0.1940	0.1677
Mercury	18460-09-19 05:16 G	8463698.60	8463698.72	8463698.85	0.1595	0.0806
Moon	18463-03-07 15:36 G	8464597.96	8464598.15	8464598.34	0.1721	0.0671
Earth	18463-03-07 21:21 G	8464598.22	8464598.39	8464598.56	0.1721	0.0811 *
Mercury	18470-02-09 12:43 G	8467128.98	8467129.03	8467129.08	0.1597	0.1479
Mercury	18472-01-16 08:24 G	8467834.77	8467834.85	8467834.92	0.1589	0.1366
Mercury	18476-10-07 08:52 G	8469560.75	8469560.87	8469560.98	0.1947	0.0860
Mercury	18481-06-07 15:07 G	8471265.00	8471265.13	8471265.27	0.1591	0.0664
Venus	18484-04-15 20:09 G	8472308.28	8472308.34	8472308.40	0.1947	0.1821
Venus	18485-03-20 14:52 G	8472646.94	8472647.12	8472647.29	0.1588	0.0090
Mercury	18486-02-27 12:57 G	8472990.92	8472991.04	8472991.17	0.1944	0.0347
Mercury	18490-10-28 22:19 G	8474695.29	8474695.43	8474695.58	0.1593	0.0029
Mercury	18495-07-20 17:02 G	8476421.14	8476421.21	8476421.29	0.1941	0.1560
Mercury	18500-03-21 05:31 G	8478125.61	8478125.73	8478125.86	0.1595	0.0710
Mercury	18509-08-11 13:12 G	8481555.98	8481556.05	8481556.12	0.1597	0.1378

Mercury	18511-07-18 08:38 G	8482261.81	8482261.86	8482261.91	0.1589	0.1470
Mercury	18516-04-08 09:07 G	8483987.77	8483987.88	8483987.99	0.1947	0.0985
Venus	18516-04-17 03:50 G	8483996.58	8483996.66	8483996.73	0.1951	0.1751
Venus	18517-03-20 04:33 G	8484333.61	8484333.69	8484333.76	0.1586	0.1424
Venus	18519-01-18 13:40 G	8485003.00	8485003.07	8485003.14	0.1592	0.1449
Mercury	18520-12-07 15:36 G	8485692.02	8485692.15	8485692.28	0.1591	0.0771
Mercury	18525-08-29 13:26 G	8487417.93	8487418.06	8487418.18	0.1944	0.0217
Mercury	18530-04-29 22:48 G	8489122.30	8489122.45	8489122.59	0.1593	0.0090
Mercury	18535-01-19 17:31 G	8490848.14	8490848.23	8490848.31	0.1941	0.1425
Mercury	18539-09-20 06:00 G	8492552.61	8492552.75	8492552.88	0.1595	0.0612
Earth	18542-03-11 08:52 G	8493455.72	8493455.87	8493456.03	0.1727	0.1024
Moon	18542-03-11 13:12 G	8493455.88	8493456.05	8493456.23	0.1727	0.0879 *
Mercury	18549-02-09 13:12 G	8495982.97	8495983.05	8495983.14	0.1597	0.1284
Mercury	18551-01-16 08:52 G	8496688.86	8496688.87	8496688.89	0.1589	0.1573
Venus	18551-01-17 03:36 G	8496689.48	8496689.65	8496689.83	0.1589	0.0094
Mercury	18555-10-08 09:07 G	8498414.78	8498414.88	8498414.99	0.1947	0.1097
Mercury	18560-06-07 15:50 G	8500119.04	8500119.16	8500119.28	0.1591	0.0872
Moon	18563-09-09 09:21 G	8501307.69	8501307.89	8501308.09	0.1817	0.0541
Earth	18563-09-09 10:04 G	8501307.73	8501307.92	8501308.11	0.1817	0.0331 *
Mercury	18565-02-27 13:40 G	8501844.94	8501845.07	8501845.19	0.1945	0.0105
Mercury	18569-10-28 23:02 G	8503549.31	8503549.46	8503549.60	0.1593	0.0180
Mercury	18574-07-20 17:45 G	8505275.15	8505275.24	8505275.34	0.1941	0.1295
Mercury	18579-03-21 06:14 G	8506979.62	8506979.76	8506979.90	0.1595	0.0505
Venus	18582-02-12 04:33 G	8508038.54	8508038.69	8508038.84	0.1950	0.1041
Venus	18583-01-15 17:45 G	8508376.14	8508376.24	8508376.34	0.1587	0.1263
Mercury	18588-08-10 13:40 G	8510409.97	8510410.07	8510410.16	0.1597	0.1183
Mercury	18595-04-08 09:21 G	8512841.79	8512841.89	8512841.99	0.1948	0.1226
Mercury	18599-12-07 16:04 G	8514546.06	8514546.17	8514546.29	0.1591	0.0976
Mercury	18604-08-29 13:55 G	8516271.95	8516272.08	8516272.20	0.1944	0.0070
Mercury	18609-04-29 23:16 G	8517976.33	8517976.47	8517976.61	0.1593	0.0279

Mercury	18614-01-19 17:45 G	8519702.14	8519702.24	8519702.34	0.1941	0.1186
Venus	18616-11-14 17:02 G	8520732.04	8520732.21	8520732.38	0.1590	0.0254
Mercury	18618-09-20 06:28 G	8521406.63	8521406.77	8521406.91	0.1595	0.0406
Mercury	18628-02-10 13:55 G	8524836.98	8524837.08	8524837.18	0.1597	0.1082
Mercury	18634-10-08 09:50 G	8527268.82	8527268.91	8527269.00	0.1947	0.1360
Mercury	18639-06-08 16:33 G	8528973.08	8528973.19	8528973.30	0.1591	0.1083
Mercury	18644-02-28 13:55 G	8530698.95	8530699.08	8530699.21	0.1944	0.0158
Venus	18647-12-11 05:45 G	8532080.57	8532080.74	8532080.91	0.1949	0.0338
Mercury	18648-10-28 23:31 G	8532403.34	8532403.48	8532403.62	0.1592	0.0385
Venus	18648-11-13 06:57 G	8532418.67	8532418.79	8532418.92	0.1587	0.1103
Mercury	18653-07-20 18:14 G	8534129.15	8534129.26	8534129.37	0.1941	0.1041
Mercury	18658-03-21 06:43 G	8535833.64	8535833.78	8535833.92	0.1595	0.0308
Mercury	18667-08-11 14:09 G	8539263.98	8539264.09	8539264.20	0.1597	0.0985
Mercury	18674-04-08 09:36 G	8541695.82	8541695.90	8541695.99	0.1948	0.1461
Mercury	18678-12-07 16:48 G	8543400.11	8543400.20	8543400.30	0.1591	0.1186
Venus	18682-09-12 06:00 G	8544774.58	8544774.75	8544774.92	0.1590	0.0428
Mercury	18683-08-29 14:24 G	8545125.97	8545126.10	8545126.22	0.1945	0.0297
Mercury	18688-04-29 00:00 G	8546830.36	8546830.50	8546830.63	0.1592	0.0491
Mercury	18693-01-18 18:28 G	8548556.16	8548556.27	8548556.38	0.1941	0.0922
Mercury	18697-09-19 07:12 G	8550260.65	8550260.80	8550260.94	0.1594	0.0203
Mercury	18707-02-10 14:24 G	8553690.98	8553691.10	8553691.22	0.1597	0.0888
Venus	18713-10-08 06:43 G	8556122.61	8556122.78	8556122.95	0.1948	0.0374
Mercury	18713-10-08 10:04 G	8556122.85	8556122.92	8556122.99	0.1948	0.1601 *
Venus	18714-09-11 20:09 G	8556461.20	8556461.34	8556461.48	0.1588	0.0935
Mercury	18716-07-02 21:50 G	8557121.39	8557121.41	8557121.44	0.1599	0.1559
Mercury	18718-06-08 17:02 G	8557827.13	8557827.21	8557827.30	0.1590	0.1290
Mercury	18723-02-28 14:24 G	8559552.98	8559553.10	8559553.23	0.1945	0.0407
Mercury	18727-10-30 00:14 G	8561257.37	8561257.51	8561257.64	0.1592	0.0590
Mercury	18732-07-20 18:43 G	8562983.16	8562983.28	8562983.39	0.1942	0.0805
Mercury	18737-03-21 07:26 G	8564687.66	8564687.81	8564687.95	0.1595	0.0111

Mercury	18746-08-11 14:38 G	8568117.99	8568118.11	8568118.24	0.1597	0.0785
Moon	18747-03-11 10:19 G	8568329.75	8568329.93	8568330.11	0.1714	0.0142
Earth	18747-03-11 13:40 G	8568329.89	8568330.07	8568330.26	0.1714	0.0315 *
Venus	18748-07-10 18:57 G	8568817.13	8568817.29	8568817.45	0.1591	0.0600
Mercury	18753-04-08 10:19 G	8570549.87	8570549.93	8570549.99	0.1948	0.1723
Mercury	18756-01-01 22:04 G	8571548.37	8571548.42	8571548.48	0.1599	0.1459
Mercury	18757-12-07 17:31 G	8572254.16	8572254.23	8572254.30	0.1590	0.1399
Mercury	18762-08-29 14:38 G	8573979.99	8573980.11	8573980.23	0.1945	0.0535
Mercury	18767-04-30 00:28 G	8575684.39	8575684.52	8575684.65	0.1592	0.0694
Mercury	18772-01-19 18:57 G	8577410.17	8577410.29	8577410.41	0.1941	0.0670
Mercury	18776-09-19 07:40 G	8579114.67	8579114.82	8579114.96	0.1594	0.0029
Venus	18779-08-05 07:26 G	8580164.67	8580164.81	8580164.96	0.1946	0.1091
Venus	18780-07-09 09:21 G	8580503.74	8580503.89	8580504.04	0.1588	0.0769
Mercury	18781-06-10 22:48 G	8580840.43	8580840.45	8580840.46	0.1938	0.1916
Mercury	18786-02-09 14:52 G	8582544.99	8582545.12	8582545.25	0.1597	0.0688
Mercury	18792-10-07 10:19 G	8584976.89	8584976.93	8584976.97	0.1948	0.1834
Mercury	18795-07-02 22:19 G	8585975.36	8585975.43	8585975.51	0.1599	0.1362
Mercury	18797-06-07 17:45 G	8586681.19	8586681.24	8586681.28	0.1590	0.1501
Mercury	18802-02-27 14:52 G	8588407.00	8588407.12	8588407.24	0.1945	0.0663
Mercury	18806-10-29 00:43 G	8590111.41	8590111.53	8590111.66	0.1592	0.0798
Mercury	18811-07-20 19:12 G	8591837.18	8591837.30	8591837.42	0.1941	0.0542
Venus	18814-05-08 08:09 G	8592859.69	8592859.84	8592859.99	0.1592	0.0772
Mercury	18816-03-20 07:55 G	8593541.69	8593541.83	8593541.98	0.1594	0.0108
Mercury	18820-12-09 23:02 G	8595267.41	8595267.46	8595267.51	0.1938	0.1783
Mercury	18825-08-10 15:07 G	8596972.00	8596972.13	8596972.27	0.1597	0.0588
Moon	18826-03-13 16:48 G	8597187.06	8597187.20	8597187.35	0.1719	0.1115
Earth	18826-03-14 00:28 G	8597187.43	8597187.52	8597187.62	0.1720	0.1484
Mercury	18834-12-31 22:33 G	8600402.36	8600402.44	8600402.53	0.1599	0.1267
Mercury	18841-08-28 15:07 G	8602834.01	8602834.13	8602834.25	0.1945	0.0783
Venus	18845-06-01 08:24 G	8604206.79	8604206.85	8604206.91	0.1944	0.1804

Mercury	18846-04-29 00:57 G	8604538.42	8604538.54	8604538.66	0.1592	0.0901
Venus	18846-05-06 22:19 G	8604546.27	8604546.43	8604546.59	0.1589	0.0596
Moon	18847-09-11 05:31 G	8605038.56	8605038.73	8605038.91	0.1827	0.0664
Earth	18847-09-11 12:14 G	8605038.81	8605039.01	8605039.20	0.1827	0.0243 *
Mercury	18851-01-18 19:12 G	8606264.18	8606264.30	8606264.43	0.1942	0.0432
Mercury	18855-09-19 08:09 G	8607968.70	8607968.84	8607968.99	0.1594	0.0205
Mercury	18860-06-09 23:16 G	8609694.41	8609694.47	8609694.54	0.1938	0.1648
Mercury	18865-02-08 15:36 G	8611399.01	8611399.15	8611399.28	0.1597	0.0485
Mercury	18874-07-01 23:02 G	8614829.36	8614829.46	8614829.55	0.1599	0.1165
Venus	18877-06-01 14:38 G	8615895.03	8615895.11	8615895.19	0.1949	0.1735
Venus	18880-03-04 20:52 G	8616902.23	8616902.37	8616902.51	0.1593	0.0953
Mercury	18881-02-26 15:21 G	8617261.02	8617261.14	8617261.25	0.1945	0.0905
Mercury	18885-10-28 01:26 G	8618965.44	8618965.56	8618965.67	0.1592	0.1007
Mercury	18890-07-19 19:40 G	8620691.19	8620691.32	8620691.45	0.1942	0.0289
Mercury	18895-03-20 08:24 G	8622395.71	8622395.85	8622395.99	0.1594	0.0304
Mercury	18899-12-09 23:31 G	8624121.40	8624121.48	8624121.55	0.1938	0.1541
Mercury	18904-08-10 15:50 G	8625826.02	8625826.16	8625826.30	0.1597	0.0388
Venus	18912-03-04 11:16 G	8628588.81	8628588.97	8628589.14	0.1590	0.0427
Mercury	18913-12-31 23:16 G	8629256.36	8629256.47	8629256.57	0.1599	0.1066
Mercury	18920-08-28 15:36 G	8631688.04	8631688.15	8631688.26	0.1946	0.1042
Mercury	18925-04-29 01:40 G	8633392.47	8633392.57	8633392.67	0.1592	0.1112
Mercury	18930-01-18 19:55 G	8635118.20	8635118.33	8635118.45	0.1942	0.0183
Mercury	18934-09-19 08:52 G	8636822.73	8636822.87	8636823.01	0.1594	0.0412
Mercury	18939-06-10 23:45 G	8638548.40	8638548.49	8638548.58	0.1938	0.1402
Venus	18943-03-30 16:04 G	8639937.03	8639937.17	8639937.32	0.1948	0.1043
Mercury	18944-02-09 16:04 G	8640253.03	8640253.17	8640253.31	0.1596	0.0288
Venus	18946-01-01 10:04 G	8640944.80	8640944.92	8640945.04	0.1594	0.1128
Earth	18952-03-09 19:40 G	8643204.25	8643204.32	8643204.40	0.1702	0.1546
Mercury	18953-07-01 23:31 G	8643683.36	8643683.48	8643683.59	0.1599	0.0969
Mercury	18960-02-27 15:36 G	8646115.05	8646115.15	8646115.25	0.1945	0.1148

Mercury	18964-10-28 01:55 G	8647819.49	8647819.58	8647819.67	0.1592	0.1213
Mercury	18969-07-19 19:55 G	8649545.20	8649545.33	8649545.46	0.1942	0.0073
Mercury	18974-03-20 09:07 G	8651249.74	8651249.88	8651250.01	0.1594	0.0512
Venus	18977-12-31 00:14 G	8652631.34	8652631.51	8652631.68	0.1591	0.0250
Mercury	18978-12-10 00:00 G	8652975.41	8652975.50	8652975.60	0.1938	0.1270
Mercury	18983-08-10 16:19 G	8654680.04	8654680.18	8654680.32	0.1596	0.0180
Mercury	18992-12-30 23:45 G	8658110.37	8658110.49	8658110.61	0.1599	0.0868
Mercury	18999-08-28 15:50 G	8660542.07	8660542.16	8660542.26	0.1946	0.1279

20TH MILLENNIUM CE

This is a list of transits visible from Mars in the 20th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	19002-05-24 07:12 G		8661540.77	8661540.80	8661540.84	0.1601	0.1545	
Mercury	19004-04-29 02:09 G		8662246.51	8662246.59	8662246.67	0.1592	0.1320	
Mercury	19009-01-18 20:09 G		8663972.22	8663972.34	8663972.47	0.1942	0.0106	
Venus	19009-01-25 16:48 G		8663979.03	8663979.20	8663979.38	0.1947	0.0323	
Venus	19011-10-30 23:02 G		8664987.36	8664987.46	8664987.56	0.1595	0.1307	
Mercury	19013-09-19 09:21 G		8665676.76	8665676.89	8665677.02	0.1594	0.0614	
Mercury	19018-06-11 00:14 G		8667402.40	8667402.51	8667402.61	0.1938	0.1159	
Mercury	19023-02-09 16:33 G		8669107.05	8669107.19	8669107.33	0.1596	0.0083	
Earth	19031-03-14 05:45 G		8672061.55	8672061.74	8672061.93	0.1707	0.0170	
Moon	19031-03-14 12:43 G		8672061.85	8672062.03	8672062.22	0.1707	0.0502	*
Mercury	19032-07-02 00:00 G		8672537.38	8672537.50	8672537.62	0.1599	0.0768	

Mercury	19039-02-27 16:04 G	8674969.09	8674969.17	8674969.26	0.1946	0.1409
Mercury	19041-11-22 07:40 G	8675967.76	8675967.82	8675967.88	0.1601	0.1443
Mercury	19043-10-29 02:38 G	8676673.55	8676673.61	8676673.67	0.1592	0.1428
Venus	19043-10-29 13:26 G	8676673.89	8676674.06	8676674.24	0.1592	0.0090
Mercury	19048-07-19 20:38 G	8678399.23	8678399.36	8678399.48	0.1942	0.0217
Mercury	19053-03-20 09:36 G	8680103.77	8680103.90	8680104.03	0.1594	0.0721
Mercury	19057-12-10 00:28 G	8681829.41	8681829.52	8681829.63	0.1939	0.1024
Mercury	19062-08-10 16:48 G	8683534.06	8683534.20	8683534.34	0.1596	0.0020
Mercury	19072-01-01 00:14 G	8686964.38	8686964.51	8686964.64	0.1599	0.0671
Venus	19074-11-22 18:14 G	8688021.08	8688021.26	8688021.43	0.1945	0.0388
Venus	19075-10-28 03:36 G	8688360.58	8688360.65	8688360.72	0.1589	0.1456
Venus	19077-08-27 12:00 G	8689029.94	8689030.00	8689030.06	0.1596	0.1484
Mercury	19078-08-28 16:19 G	8689396.10	8689396.18	8689396.26	0.1946	0.1525
Mercury	19081-05-23 07:40 G	8690394.75	8690394.82	8690394.90	0.1601	0.1348
Mercury	19083-04-29 02:52 G	8691100.58	8691100.62	8691100.65	0.1592	0.1531
Mercury	19088-01-18 20:38 G	8692826.23	8692826.36	8692826.49	0.1943	0.0324
Mercury	19092-09-18 09:50 G	8694530.79	8694530.91	8694531.04	0.1594	0.0824
Mercury	19097-06-10 00:43 G	8696256.42	8696256.53	8696256.65	0.1939	0.0891
Mercury	19102-02-09 17:02 G	8697961.07	8697961.21	8697961.36	0.1596	0.0130
Venus	19109-08-27 02:09 G	8700716.42	8700716.59	8700716.77	0.1593	0.0097
Mercury	19111-07-03 00:28 G	8701391.39	8701391.52	8701391.65	0.1598	0.0567
Mercury	19118-02-27 16:33 G	8703823.12	8703823.19	8703823.25	0.1946	0.1647
Mercury	19120-11-22 07:55 G	8704821.75	8704821.83	8704821.92	0.1601	0.1251
Mercury	19127-07-20 20:52 G	8707253.25	8707253.37	8707253.50	0.1942	0.0463
Earth	19131-09-14 11:31 G	8708769.79	8708769.98	8708770.17	0.1836	0.0236
Moon	19131-09-14 18:43 G	8708770.10	8708770.28	8708770.46	0.1835	0.0383 *
Mercury	19132-03-20 10:04 G	8708957.80	8708957.92	8708958.04	0.1594	0.0924
Mercury	19136-12-10 00:43 G	8710683.42	8710683.53	8710683.65	0.1939	0.0783
Venus	19140-09-19 18:57 G	8712063.15	8712063.29	8712063.44	0.1943	0.1100
Mercury	19141-08-10 17:16 G	8712388.08	8712388.22	8712388.37	0.1596	0.0230

Venus	19141-08-25 16:33 G	8712403.09	8712403.19	8712403.29	0.1590	0.1285
Mercury	19151-01-01 00:43 G	8715818.40	8715818.53	8715818.67	0.1599	0.0466
Mercury	19157-08-28 16:48 G	8718250.15	8718250.20	8718250.25	0.1946	0.1785
Mercury	19160-05-23 08:24 G	8719248.75	8719248.85	8719248.94	0.1601	0.1148
Mercury	19167-01-18 21:07 G	8721680.26	8721680.38	8721680.50	0.1942	0.0578
Mercury	19171-09-19 10:33 G	8723384.83	8723384.94	8723385.05	0.1594	0.1034
Venus	19175-06-24 15:07 G	8724758.96	8724759.13	8724759.31	0.1594	0.0273
Mercury	19176-06-10 01:12 G	8725110.43	8725110.55	8725110.67	0.1939	0.0642
Mercury	19181-02-08 17:31 G	8726815.09	8726815.23	8726815.37	0.1596	0.0328
Mercury	19185-10-31 04:48 G	8728540.68	8728540.70	8728540.73	0.1934	0.1897
Mercury	19190-07-02 00:57 G	8730245.40	8730245.54	8730245.68	0.1598	0.0368
Mercury	19197-02-26 16:48 G	8732677.17	8732677.20	8732677.23	0.1946	0.1890
Mercury	19199-11-22 08:24 G	8733675.75	8733675.85	8733675.96	0.1601	0.1053
Venus	19206-07-17 20:09 G	8736105.28	8736105.34	8736105.40	0.1941	0.1812
Mercury	19206-07-19 21:21 G	8736107.27	8736107.39	8736107.51	0.1943	0.0707
Venus	19207-06-23 05:31 G	8736445.61	8736445.73	8736445.86	0.1590	0.1117
Mercury	19211-03-20 10:48 G	8737811.85	8737811.95	8737812.05	0.1594	0.1137
Mercury	19215-12-10 01:26 G	8739537.44	8739537.56	8739537.69	0.1939	0.0510
Mercury	19220-08-09 18:00 G	8741242.11	8741242.25	8741242.39	0.1596	0.0435
Mercury	19225-05-01 05:02 G	8742967.66	8742967.71	8742967.76	0.1935	0.1775
Mercury	19229-12-31 01:12 G	8744672.41	8744672.55	8744672.69	0.1598	0.0266
Moon	19236-03-12 06:28 G	8746935.66	8746935.77	8746935.88	0.1694	0.1363
Earth	19236-03-12 13:40 G	8746935.92	8746936.07	8746936.22	0.1695	0.1028
Venus	19238-07-18 02:09 G	8747793.52	8747793.59	8747793.67	0.1947	0.1742
Mercury	19239-05-23 08:38 G	8748102.75	8748102.86	8748102.98	0.1601	0.0953
Venus	19241-04-21 04:04 G	8748801.51	8748801.67	8748801.84	0.1595	0.0450
Mercury	19246-01-17 21:36 G	8750534.28	8750534.40	8750534.51	0.1943	0.0834
Mercury	19250-09-18 11:02 G	8752238.87	8752238.96	8752239.05	0.1594	0.1241
Mercury	19255-06-10 01:26 G	8753964.44	8753964.56	8753964.69	0.1939	0.0402
Mercury	19260-02-08 18:14 G	8755669.12	8755669.26	8755669.39	0.1596	0.0535

Mercury	19264-10-30 05:31 G	8757394.66	8757394.73	8757394.80	0.1935	0.1635
Mercury	19269-07-01 01:26 G	8759099.42	8759099.56	8759099.71	0.1598	0.0169
Venus	19273-04-19 18:28 G	8760488.13	8760488.27	8760488.41	0.1591	0.0941
Mercury	19278-11-21 09:07 G	8762529.76	8762529.88	8762530.00	0.1601	0.0849
Mercury	19285-07-18 21:50 G	8764961.30	8764961.41	8764961.52	0.1943	0.0960
Mercury	19288-04-12 16:33 G	8765960.15	8765960.19	8765960.23	0.1604	0.1531
Mercury	19290-03-19 11:16 G	8766665.90	8766665.97	8766666.05	0.1593	0.1349
Mercury	19294-12-09 01:55 G	8768391.45	8768391.58	8768391.71	0.1939	0.0265
Mercury	19299-08-09 18:28 G	8770096.14	8770096.27	8770096.40	0.1596	0.0638
Mercury	19304-05-01 05:31 G	8771821.65	8771821.73	8771821.81	0.1935	0.1517
Venus	19304-05-15 02:38 G	8771835.46	8771835.61	8771835.76	0.1946	0.1004
Venus	19307-02-17 16:48 G	8772844.04	8772844.20	8772844.36	0.1596	0.0633
Mercury	19308-12-31 01:40 G	8773526.43	8773526.57	8773526.72	0.1598	0.0080
Moon	19315-03-16 19:40 G	8775793.14	8775793.32	8775793.50	0.1700	0.0833
Earth	19315-03-16 23:16 G	8775793.29	8775793.47	8775793.64	0.1700	0.0670 *
Mercury	19318-05-23 09:21 G	8776956.76	8776956.89	8776957.01	0.1601	0.0752
Mercury	19325-01-17 21:50 G	8779388.31	8779388.41	8779388.52	0.1943	0.1080
Mercury	19327-10-13 16:48 G	8780387.14	8780387.20	8780387.27	0.1604	0.1431
Mercury	19329-09-18 11:31 G	8781092.93	8781092.98	8781093.04	0.1594	0.1455
Mercury	19334-06-10 02:09 G	8782818.46	8782818.59	8782818.72	0.1939	0.0128
Mercury	19339-02-08 18:43 G	8784523.16	8784523.28	8784523.41	0.1596	0.0748
Venus	19339-02-16 07:40 G	8784530.67	8784530.82	8784530.97	0.1592	0.0771
Mercury	19343-10-31 06:00 G	8786248.66	8786248.75	8786248.84	0.1935	0.1384
Mercury	19348-07-01 02:09 G	8787953.44	8787953.59	8787953.73	0.1598	0.0059
Mercury	19357-11-21 09:21 G	8791383.76	8791383.89	8791384.02	0.1601	0.0654
Mercury	19364-07-18 22:19 G	8793815.33	8793815.43	8793815.53	0.1943	0.1216
Mercury	19367-04-13 17:02 G	8794814.14	8794814.21	8794814.29	0.1604	0.1333
Mercury	19369-03-19 11:45 G	8795519.97	8795519.99	8795520.02	0.1593	0.1559
Venus	19370-03-12 04:19 G	8795877.51	8795877.68	8795877.86	0.1944	0.0318
Venus	19372-12-15 06:00 G	8796886.60	8796886.75	8796886.90	0.1597	0.0809

Mercury	19373-12-09 02:09 G	8797245.46	8797245.59	8797245.72	0.1939	0.0031
Mercury	19378-08-09 18:57 G	8798950.17	8798950.29	8798950.41	0.1596	0.0850
Mercury	19383-05-01 06:14 G	8800675.66	8800675.76	8800675.86	0.1936	0.1252
Mercury	19387-12-31 02:24 G	8802380.46	8802380.60	8802380.74	0.1598	0.0149
Mercury	19397-05-22 09:50 G	8805810.77	8805810.91	8805811.04	0.1601	0.0546
Mercury	19404-01-18 22:19 G	8808242.34	8808242.43	8808242.52	0.1943	0.1333
Venus	19404-12-14 20:24 G	8808573.19	8808573.35	8808573.51	0.1593	0.0591
Mercury	19406-10-13 17:16 G	8809241.13	8809241.22	8809241.31	0.1604	0.1234
Mercury	19413-06-10 02:38 G	8811672.48	8811672.61	8811672.74	0.1940	0.0131
Moon	19415-09-16 07:12 G	8812500.59	8812500.80	8812501.00	0.1845	0.0495
Earth	19415-09-16 10:04 G	8812500.72	8812500.92	8812501.11	0.1845	0.0280 *
Mercury	19418-02-08 19:12 G	8813377.19	8813377.30	8813377.42	0.1595	0.0953
Mercury	19422-10-31 06:28 G	8815102.66	8815102.77	8815102.87	0.1935	0.1127
Mercury	19427-07-02 02:38 G	8816807.47	8816807.61	8816807.75	0.1598	0.0250
Venus	19436-01-08 05:16 G	8819919.55	8819919.72	8819919.90	0.1942	0.0402
Mercury	19436-11-21 10:04 G	8820237.78	8820237.92	8820238.05	0.1601	0.0447
Venus	19438-10-13 18:57 G	8820929.15	8820929.29	8820929.42	0.1598	0.0995
Mercury	19443-07-19 22:33 G	8822669.36	8822669.44	8822669.52	0.1944	0.1466
Mercury	19446-04-13 17:31 G	8823668.14	8823668.23	8823668.33	0.1603	0.1131
Mercury	19452-12-09 02:52 G	8826099.49	8826099.62	8826099.75	0.1940	0.0255
Mercury	19457-08-09 19:40 G	8827804.21	8827804.32	8827804.43	0.1595	0.1064
Mercury	19462-05-01 06:43 G	8829529.66	8829529.78	8829529.89	0.1936	0.1003
Mercury	19466-12-31 02:52 G	8831234.48	8831234.62	8831234.76	0.1598	0.0354
Venus	19470-10-12 09:36 G	8832615.74	8832615.90	8832616.07	0.1594	0.0423
Mercury	19476-05-22 10:19 G	8834664.79	8834664.93	8834665.07	0.1600	0.0347
Mercury	19483-01-17 22:48 G	8837096.38	8837096.45	8837096.52	0.1943	0.1589
Mercury	19485-10-12 17:45 G	8838095.14	8838095.24	8838095.35	0.1603	0.1034
Mercury	19492-06-09 02:52 G	8840526.49	8840526.62	8840526.75	0.1940	0.0367
Mercury	19497-02-07 19:55 G	8842231.23	8842231.33	8842231.42	0.1595	0.1166
Mercury	19501-10-31 06:57 G	8843956.68	8843956.79	8843956.91	0.1936	0.0857

Venus	19501-11-05 06:57 G	8843961.65	8843961.79	8843961.94	0.1940	0.1095
Venus	19504-08-11 07:40 G	8844971.71	8844971.82	8844971.94	0.1599	0.1174
Mercury	19506-07-02 03:07 G	8845661.50	8845661.63	8845661.77	0.1598	0.0463
Mercury	19515-11-22 10:33 G	8849091.80	8849091.94	8849092.08	0.1600	0.0238
Earth	19520-03-16 08:52 G	8850667.69	8850667.87	8850668.06	0.1688	0.0486
Moon	19520-03-16 12:43 G	8850667.87	8850668.03	8850668.20	0.1689	0.0626 *
Mercury	19522-07-19 23:02 G	8851523.40	8851523.46	8851523.52	0.1943	0.1716
Mercury	19525-04-13 18:00 G	8852522.14	8852522.25	8852522.37	0.1603	0.0933
Mercury	19531-12-10 03:21 G	8854953.51	8854953.64	8854953.76	0.1940	0.0512
Mercury	19536-08-09 20:09 G	8856658.26	8856658.34	8856658.43	0.1595	0.1273
Venus	19536-08-09 22:19 G	8856658.26	8856658.43	8856658.60	0.1595	0.0240 *
Mercury	19541-05-01 07:12 G	8858383.68	8858383.80	8858383.92	0.1936	0.0743
Mercury	19545-12-31 03:21 G	8860088.51	8860088.64	8860088.78	0.1598	0.0564
Mercury	19555-05-23 10:48 G	8863518.81	8863518.95	8863519.09	0.1600	0.0137
Mercury	19562-01-17 23:16 G	8865950.43	8865950.47	8865950.50	0.1944	0.1844
Mercury	19564-10-12 18:28 G	8866949.15	8866949.27	8866949.39	0.1603	0.0828
Venus	19567-09-02 08:09 G	8868003.78	8868003.84	8868003.91	0.1938	0.1796
Venus	19570-06-08 20:24 G	8869014.27	8869014.35	8869014.44	0.1601	0.1365
Mercury	19571-06-10 03:36 G	8869380.53	8869380.65	8869380.77	0.1940	0.0641
Mercury	19574-03-05 01:55 G	8870379.54	8870379.58	8870379.63	0.1606	0.1514
Mercury	19576-02-08 20:38 G	8871085.29	8871085.36	8871085.42	0.1595	0.1385
Mercury	19580-10-30 07:26 G	8872810.69	8872810.81	8872810.93	0.1936	0.0605
Mercury	19585-07-01 03:36 G	8874515.53	8874515.65	8874515.79	0.1598	0.0673
Mercury	19590-03-22 11:02 G	8876240.93	8876240.96	8876241.00	0.1931	0.1864
Mercury	19594-11-21 11:02 G	8877945.82	8877945.96	8877946.10	0.1600	0.0036
Moon	19599-03-19 13:12 G	8879524.93	8879525.05	8879525.16	0.1693	0.1316
Earth	19599-03-19 18:00 G	8879525.12	8879525.25	8879525.39	0.1693	0.1195 *
Venus	19599-09-02 13:12 G	8879691.97	8879692.05	8879692.13	0.1945	0.1726
Venus	19602-06-07 11:31 G	8880700.80	8880700.98	8880701.15	0.1596	0.0072
Mercury	19604-04-12 18:43 G	8881376.15	8881376.28	8881376.40	0.1603	0.0729

Mercury	19610-12-09 03:36 G	8883807.53	8883807.65	8883807.77	0.1940	0.0756
Mercury	19613-09-03 02:24 G	8884806.53	8884806.60	8884806.66	0.1606	0.1413
Mercury	19615-08-09 20:52 G	8885512.32	8885512.37	8885512.41	0.1595	0.1490
Mercury	19620-04-30 07:40 G	8887237.70	8887237.82	8887237.95	0.1936	0.0471
Mercury	19624-12-30 04:04 G	8888942.54	8888942.67	8888942.79	0.1598	0.0778
Mercury	19629-09-20 11:31 G	8890667.92	8890667.98	8890668.03	0.1931	0.1728
Mercury	19634-05-22 11:31 G	8892372.83	8892372.98	8892373.12	0.1600	0.0088
Venus	19634-06-06 02:09 G	8892387.53	8892387.59	8892387.65	0.1592	0.1474
Venus	19636-04-05 09:21 G	8893056.85	8893056.89	8893056.94	0.1602	0.1546
Mercury	19643-10-12 18:57 G	8895803.16	8895803.29	8895803.42	0.1603	0.0628
Mercury	19650-06-09 04:04 G	8898234.55	8898234.67	8898234.78	0.1940	0.0899
Mercury	19653-03-04 02:24 G	8899233.53	8899233.60	8899233.68	0.1606	0.1316
Mercury	19655-02-07 21:07 G	8899939.38	8899939.38	8899939.38	0.1595	0.1595
Mercury	19659-10-30 07:55 G	8901664.70	8901664.83	8901664.96	0.1936	0.0346
Mercury	19664-06-30 04:19 G	8903369.56	8903369.68	8903369.80	0.1597	0.0883
Venus	19665-06-29 15:07 G	8903733.98	8903734.13	8903734.28	0.1943	0.1034
Venus	19668-04-04 00:14 G	8904743.34	8904743.51	8904743.69	0.1598	0.0116
Mercury	19669-03-21 11:31 G	8905094.91	8905094.98	8905095.06	0.1932	0.1607
Mercury	19673-11-20 11:31 G	8906799.84	8906799.98	8906800.13	0.1600	0.0183
Mercury	19683-04-12 19:12 G	8910230.17	8910230.30	8910230.43	0.1603	0.0519
Mercury	19689-12-08 04:19 G	8912661.57	8912661.68	8912661.79	0.1940	0.1028
Mercury	19692-09-02 02:52 G	8913660.53	8913660.62	8913660.71	0.1606	0.1212
Mercury	19699-04-30 08:09 G	8916091.71	8916091.84	8916091.97	0.1936	0.0216
Moon	19699-09-17 00:57 G	8916231.37	8916231.54	8916231.72	0.1855	0.0571
Earth	19699-09-17 07:12 G	8916231.61	8916231.80	8916231.99	0.1854	0.0363 *
Venus	19700-04-03 14:52 G	8916430.03	8916430.12	8916430.22	0.1594	0.1297
Mercury	19703-12-31 04:33 G	8917796.58	8917796.69	8917796.80	0.1597	0.0990
Mercury	19708-09-20 12:00 G	8919521.92	8919522.00	8919522.09	0.1932	0.1460
Mercury	19713-05-22 12:00 G	8921226.85	8921227.00	8921227.14	0.1600	0.0285
Mercury	19722-10-12 19:26 G	8924657.17	8924657.31	8924657.45	0.1603	0.0420

Moon	19725-03-15 18:43 G	8925542.17	8925542.28	8925542.40	0.1677	0.1365
Earth	19725-03-15 22:33 G	8925542.36	8925542.44	8925542.51	0.1678	0.1527 *
Mercury	19729-06-09 04:19 G	8927088.58	8927088.68	8927088.78	0.1941	0.1144
Venus	19731-04-27 15:50 G	8927775.99	8927776.16	8927776.34	0.1941	0.0310
Mercury	19732-03-04 03:07 G	8928087.53	8928087.63	8928087.73	0.1606	0.1110
Venus	19734-01-31 13:12 G	8928785.88	8928786.05	8928786.22	0.1599	0.0298
Mercury	19738-10-30 08:38 G	8930518.73	8930518.86	8930518.99	0.1937	0.0071
Mercury	19743-07-01 04:48 G	8932223.60	8932223.70	8932223.81	0.1597	0.1102
Mercury	19748-03-21 12:14 G	8933948.92	8933949.01	8933949.10	0.1932	0.1338
Mercury	19752-11-20 12:14 G	8935653.87	8935654.01	8935654.15	0.1600	0.0389
Mercury	19762-04-12 19:40 G	8939084.18	8939084.32	8939084.46	0.1603	0.0316
Venus	19766-01-30 04:04 G	8940472.55	8940472.67	8940472.79	0.1595	0.1128
Mercury	19768-12-08 04:48 G	8941515.60	8941515.70	8941515.79	0.1941	0.1289
Mercury	19771-09-03 03:21 G	8942514.53	8942514.64	8942514.75	0.1606	0.1010
Mercury	19778-04-30 08:38 G	8944945.73	8944945.86	8944945.99	0.1936	0.0043
Mercury	19782-12-30 05:16 G	8946650.62	8946650.72	8946650.81	0.1597	0.1205
Mercury	19787-09-20 12:28 G	8948375.92	8948376.02	8948376.12	0.1932	0.1202
Mercury	19792-05-21 12:28 G	8950080.88	8950081.02	8950081.16	0.1600	0.0494
Venus	19797-02-21 18:00 G	8951818.08	8951818.25	8951818.43	0.1939	0.0367
Venus	19799-11-29 02:09 G	8952828.43	8952828.59	8952828.76	0.1600	0.0476
Mercury	19801-10-12 19:55 G	8953511.19	8953511.33	8953511.48	0.1603	0.0213
Earth	19804-03-19 06:14 G	8954399.57	8954399.76	8954399.95	0.1682	0.0100
Moon	19804-03-19 10:48 G	8954399.75	8954399.95	8954400.16	0.1683	0.0047 *
Mercury	19808-06-09 05:02 G	8955942.62	8955942.71	8955942.79	0.1941	0.1417
Mercury	19811-03-05 03:36 G	8956941.53	8956941.65	8956941.76	0.1606	0.0906
Mercury	19817-10-30 09:07 G	8959372.75	8959372.88	8959373.01	0.1937	0.0197
Mercury	19820-07-25 11:16 G	8960371.95	8960371.97	8960371.98	0.1609	0.1595
Mercury	19822-07-01 05:31 G	8961077.65	8961077.73	8961077.81	0.1597	0.1313
Mercury	19827-03-22 12:43 G	8962802.93	8962803.03	8962803.14	0.1932	0.1068
Mercury	19831-11-21 12:43 G	8964507.90	8964508.03	8964508.16	0.1600	0.0599

Venus	19831-11-28 17:02 G	8964515.07	8964515.21	8964515.35	0.1596	0.0951
Mercury	19841-04-12 20:09 G	8967938.20	8967938.34	8967938.48	0.1603	0.0110
Mercury	19847-12-09 05:02 G	8970369.64	8970369.71	8970369.79	0.1941	0.1538
Mercury	19850-09-03 03:50 G	8971368.54	8971368.66	8971368.78	0.1606	0.0801
Mercury	19857-04-30 09:21 G	8973799.76	8973799.89	8973800.02	0.1937	0.0323
Mercury	19860-01-24 11:31 G	8974798.93	8974798.98	8974799.03	0.1609	0.1490
Mercury	19861-12-30 05:45 G	8975504.68	8975504.74	8975504.81	0.1597	0.1426
Venus	19862-12-20 19:40 G	8975860.17	8975860.32	8975860.46	0.1936	0.1063
Venus	19865-09-26 15:07 G	8976870.97	8976871.13	8976871.29	0.1601	0.0661
Mercury	19866-09-20 13:12 G	8977229.93	8977230.05	8977230.16	0.1932	0.0933
Mercury	19871-05-22 13:12 G	8978934.92	8978935.05	8978935.17	0.1599	0.0712
Mercury	19880-10-11 20:24 G	8982365.21	8982365.35	8982365.50	0.1602	0.0040
Mercury	19887-06-09 05:31 G	8984796.67	8984796.73	8984796.79	0.1941	0.1679
Mercury	19890-03-04 04:04 G	8985795.54	8985795.67	8985795.79	0.1606	0.0702
Mercury	19896-10-29 09:36 G	8988226.77	8988226.90	8988227.02	0.1937	0.0450
Venus	19897-09-25 06:14 G	8988557.61	8988557.76	8988557.91	0.1597	0.0780
Mercury	19899-07-25 11:45 G	8989225.92	8989225.99	8989226.06	0.1609	0.1390
Mercury	19901-07-01 06:00 G	8989931.72	8989931.75	8989931.79	0.1597	0.1532
Mercury	19906-03-22 13:26 G	8991656.94	8991657.06	8991657.17	0.1933	0.0807
Mercury	19910-11-21 13:26 G	8993361.93	8993362.06	8993362.18	0.1600	0.0816
Mercury	19920-04-12 20:52 G	8996792.23	8996792.37	8996792.51	0.1602	0.0110
Mercury	19926-12-09 05:45 G	8999223.69	8999223.74	8999223.78	0.1941	0.1810
Venus	19928-10-17 21:21 G	8999902.32	8999902.39	8999902.47	0.1934	0.1748
Mercury	19929-09-03 04:19 G	9000222.55	9000222.68	9000222.81	0.1605	0.0594
Venus	19931-07-26 04:04 G	9000913.52	9000913.67	9000913.81	0.1603	0.0844
Mercury	19936-04-30 09:50 G	9002653.78	9002653.91	9002654.03	0.1937	0.0581
Mercury	19939-01-24 12:00 G	9003652.92	9003653.00	9003653.08	0.1609	0.1290
Mercury	19945-09-20 13:40 G	9006083.95	9006084.07	9006084.20	0.1932	0.0662
Mercury	19950-05-22 13:40 G	9007788.95	9007789.07	9007789.18	0.1599	0.0922
Mercury	19959-10-12 21:07 G	9011219.24	9011219.38	9011219.52	0.1602	0.0213

Venus	19960-10-18 02:09 G	9011590.52	9011590.59	9011590.66	0.1942	0.1777
Venus	19963-07-24 18:57 G	9012600.13	9012600.29	9012600.45	0.1598	0.0597
Mercury	19966-06-09 05:45 G	9013650.73	9013650.74	9013650.75	0.1941	0.1930
Mercury	19969-03-04 04:33 G	9014649.56	9014649.69	9014649.83	0.1605	0.0491
Mercury	19975-10-30 10:04 G	9017080.80	9017080.92	9017081.04	0.1937	0.0727
Mercury	19978-07-25 12:14 G	9018079.92	9018080.01	9018080.11	0.1609	0.1184
Earth	19983-09-20 03:21 G	9019962.45	9019962.64	9019962.83	0.1863	0.0499
Moon	19983-09-20 11:45 G	9019962.80	9019962.99	9019963.19	0.1863	0.0211 *
Mercury	19985-03-21 13:55 G	9020510.95	9020511.08	9020511.21	0.1933	0.0538
Mercury	19989-11-20 13:55 G	9022215.97	9022216.08	9022216.19	0.1599	0.1033
Mercury	19994-08-11 17:45 G	9023941.19	9023941.24	9023941.28	0.1928	0.1795
Venus	19997-05-22 16:48 G	9024956.07	9024956.20	9024956.33	0.1604	0.1035
Mercury	19999-04-12 21:21 G	9025646.25	9025646.39	9025646.53	0.1602	0.0318

21ST MILLENNIUM CE

This is a list of transits visible from Mars in the 21st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	20008-09-02 04:48 G	9029076.57	9029076.70	9029076.84	0.1605	0.0388		
Moon	20009-03-18 18:43 G	9029274.12	9029274.28	9029274.43	0.1672	0.0802		
Earth	20009-03-18 21:50 G	9029274.25	9029274.41	9029274.57	0.1672	0.0903 *		
Mercury	20015-04-30 10:04 G	9031507.81	9031507.92	9031508.04	0.1937	0.0837		
Mercury	20018-01-23 12:28 G	9032506.92	9032507.02	9032507.12	0.1609	0.1085		
Mercury	20024-09-19 14:09 G	9034937.96	9034938.09	9034938.22	0.1933	0.0399		

Venus	20026-08-15 03:36 G	9035632.50	9035632.65	9035632.79	0.1940	0.1069
Venus	20029-05-21 08:09 G	9036642.67	9036642.84	9036643.01	0.1599	0.0421
Mercury	20029-05-21 14:09 G	9036643.00	9036643.09	9036643.19	0.1599	0.1144 *
Mercury	20034-02-09 18:00 G	9038368.18	9038368.25	9038368.31	0.1928	0.1660
Mercury	20038-10-11 21:36 G	9040073.27	9040073.40	9040073.54	0.1602	0.0431
Mercury	20048-03-03 05:02 G	9043503.57	9043503.71	9043503.85	0.1605	0.0285
Mercury	20054-10-29 10:33 G	9045934.83	9045934.94	9045935.05	0.1938	0.0982
Mercury	20057-07-24 12:43 G	9046933.92	9046934.03	9046934.14	0.1608	0.0981
Venus	20063-03-20 05:31 G	9048998.62	9048998.73	9048998.85	0.1606	0.1223
Mercury	20064-03-20 14:24 G	9049364.97	9049365.10	9049365.23	0.1933	0.0272
Mercury	20068-11-19 14:24 G	9051070.02	9051070.10	9051070.19	0.1599	0.1248
Mercury	20073-08-10 18:00 G	9052795.18	9052795.25	9052795.33	0.1928	0.1540
Mercury	20078-04-11 21:50 G	9054500.28	9054500.41	9054500.55	0.1602	0.0533
Mercury	20087-09-02 05:31 G	9057930.59	9057930.73	9057930.87	0.1605	0.0179
Moon	20088-03-20 22:19 G	9058131.25	9058131.43	9058131.62	0.1676	0.0504
Earth	20088-03-21 05:02 G	9058131.54	9058131.71	9058131.88	0.1677	0.0700 *
Venus	20092-06-11 05:16 G	9059674.55	9059674.72	9059674.89	0.1937	0.0376
Mercury	20094-04-29 10:48 G	9060361.85	9060361.95	9060362.06	0.1938	0.1120
Venus	20095-03-18 20:38 G	9060685.19	9060685.36	9060685.54	0.1601	0.0236
Mercury	20097-01-22 13:12 G	9061360.93	9061361.05	9061361.16	0.1608	0.0875
Mercury	20103-09-20 14:52 G	9063791.99	9063792.12	9063792.25	0.1933	0.0138
Mercury	20106-06-15 20:52 G	9064791.34	9064791.37	9064791.40	0.1612	0.1569
Mercury	20108-05-21 14:52 G	9065497.05	9065497.12	9065497.19	0.1599	0.1361
Mercury	20113-02-09 18:28 G	9067222.18	9067222.27	9067222.36	0.1928	0.1394
Mercury	20117-10-11 22:04 G	9068927.29	9068927.42	9068927.55	0.1602	0.0639
Mercury	20127-03-04 05:45 G	9072357.59	9072357.74	9072357.88	0.1605	0.0086
Venus	20129-01-15 18:00 G	9073041.18	9073041.25	9073041.33	0.1607	0.1421
Mercury	20133-10-29 11:02 G	9074788.86	9074788.96	9074789.06	0.1938	0.1240
Mercury	20136-07-24 13:26 G	9075787.93	9075788.06	9075788.18	0.1608	0.0773
Mercury	20143-03-21 15:07 G	9078218.99	9078219.13	9078219.26	0.1934	0.0057

Mercury	20145-12-14 21:07 G	9079218.33	9079218.38	9079218.44	0.1612	0.1464
Mercury	20147-11-20 15:07 G	9079924.08	9079924.13	9079924.18	0.1599	0.1469
Mercury	20152-08-10 18:57 G	9081649.19	9081649.29	9081649.39	0.1928	0.1250
Mercury	20157-04-11 22:33 G	9083354.31	9083354.44	9083354.56	0.1602	0.0752
Venus	20158-04-09 06:43 G	9083716.61	9083716.78	9083716.95	0.1935	0.0335
Venus	20161-01-14 09:36 G	9084727.73	9084727.90	9084728.08	0.1602	0.0055
Mercury	20166-09-02 06:00 G	9086784.61	9086784.75	9086784.89	0.1605	0.0046
Mercury	20173-04-29 11:16 G	9089215.88	9089215.97	9089216.06	0.1938	0.1375
Mercury	20176-01-23 13:26 G	9090214.94	9090215.06	9090215.19	0.1608	0.0672
Mercury	20182-09-19 15:21 G	9092646.01	9092646.14	9092646.27	0.1933	0.0144
Mercury	20185-06-14 21:21 G	9093645.32	9093645.39	9093645.46	0.1612	0.1365
Mercury	20187-05-21 15:21 G	9094351.12	9094351.14	9094351.16	0.1599	0.1577
Mercury	20192-02-09 18:57 G	9096076.18	9096076.29	9096076.40	0.1929	0.1136
Venus	20193-01-13 00:57 G	9096414.48	9096414.54	9096414.60	0.1598	0.1501
Venus	20194-11-13 06:57 G	9097083.79	9097083.79	9097083.80	0.1609	0.1607
Mercury	20196-10-10 22:48 G	9097781.33	9097781.45	9097781.57	0.1602	0.0857
Mercury	20206-03-04 06:14 G	9101211.62	9101211.76	9101211.90	0.1605	0.0144
Mercury	20212-10-29 11:45 G	9103642.91	9103642.99	9103643.07	0.1938	0.1522
Mercury	20215-07-25 13:55 G	9104641.95	9104642.08	9104642.21	0.1608	0.0562
Mercury	20222-03-21 15:36 G	9107073.02	9107073.15	9107073.28	0.1933	0.0269
Venus	20224-02-05 09:07 G	9107758.73	9107758.88	9107759.03	0.1932	0.0999
Mercury	20224-12-14 21:36 G	9108072.31	9108072.40	9108072.48	0.1611	0.1262
Venus	20226-11-12 22:48 G	9108770.27	9108770.45	9108770.62	0.1604	0.0131
Mercury	20231-08-11 19:26 G	9110503.20	9110503.31	9110503.42	0.1929	0.0981
Mercury	20236-04-11 23:02 G	9112208.35	9112208.46	9112208.57	0.1602	0.0963
Mercury	20245-09-02 06:28 G	9115638.63	9115638.77	9115638.91	0.1605	0.0248
Mercury	20252-04-29 11:45 G	9118069.92	9118069.99	9118070.05	0.1938	0.1631
Mercury	20255-01-23 14:09 G	9119068.95	9119069.09	9119069.22	0.1608	0.0460
Venus	20258-11-11 13:40 G	9120456.98	9120457.07	9120457.17	0.1599	0.1321
Mercury	20261-09-19 15:50 G	9121500.04	9121500.16	9121500.29	0.1934	0.0417

Mercury	20264-06-14 21:50 G	9122499.32	9122499.41	9122499.51	0.1611	0.1155
Moon	20267-09-21 17:02 G	9123693.01	9123693.21	9123693.41	0.1872	0.0553
Earth	20267-09-21 21:50 G	9123693.23	9123693.41	9123693.59	0.1872	0.0724 *
Mercury	20271-02-09 19:40 G	9124930.20	9124930.32	9124930.44	0.1929	0.0850
Mercury	20275-10-11 23:16 G	9126635.37	9126635.47	9126635.58	0.1602	0.1078
Mercury	20285-03-03 06:43 G	9130065.64	9130065.78	9130065.92	0.1605	0.0354
Venus	20289-12-02 11:02 G	9131800.88	9131800.96	9131801.04	0.1929	0.1687
Mercury	20291-10-29 12:00 G	9132496.96	9132497.00	9132497.05	0.1938	0.1781
Venus	20292-09-09 11:16 G	9132812.80	9132812.97	9132813.14	0.1605	0.0323
Earth	20293-03-21 21:36 G	9133006.21	9133006.40	9133006.59	0.1666	0.0276
Moon	20293-03-22 04:33 G	9133006.50	9133006.69	9133006.88	0.1667	0.0056 *
Mercury	20294-07-24 14:24 G	9133495.96	9133496.10	9133496.24	0.1608	0.0355
Mercury	20301-03-21 16:04 G	9135927.05	9135927.17	9135927.30	0.1934	0.0540
Mercury	20303-12-15 22:04 G	9136926.31	9136926.42	9136926.52	0.1611	0.1056
Mercury	20310-08-11 19:55 G	9139357.21	9139357.33	9139357.45	0.1929	0.0726
Mercury	20315-04-12 23:31 G	9141062.39	9141062.48	9141062.58	0.1602	0.1182
Venus	20321-12-03 15:07 G	9143489.08	9143489.13	9143489.18	0.1939	0.1831
Mercury	20324-09-02 07:12 G	9144492.66	9144492.80	9144492.93	0.1605	0.0469
Venus	20324-09-09 02:52 G	9144499.50	9144499.62	9144499.74	0.1600	0.1145
Mercury	20331-04-30 12:28 G	9146924.00	9146924.02	9146924.03	0.1938	0.1915
Mercury	20334-01-23 14:38 G	9147922.97	9147923.11	9147923.25	0.1608	0.0246
Mercury	20340-09-19 16:19 G	9150354.06	9150354.18	9150354.31	0.1934	0.0675
Mercury	20343-06-15 22:19 G	9151353.32	9151353.43	9151353.54	0.1611	0.0953
Mercury	20350-02-09 20:09 G	9153784.22	9153784.34	9153784.47	0.1929	0.0582
Mercury	20354-10-11 23:45 G	9155489.41	9155489.49	9155489.58	0.1601	0.1292
Venus	20358-07-09 00:14 G	9156855.34	9156855.51	9156855.67	0.1607	0.0507
Mercury	20359-07-02 23:45 G	9157214.46	9157214.49	9157214.51	0.1924	0.1872
Mercury	20364-03-03 07:12 G	9158919.67	9158919.80	9158919.93	0.1604	0.0570
Earth	20372-03-25 04:04 G	9161863.56	9161863.67	9161863.79	0.1671	0.1307
Moon	20372-03-25 05:31 G	9161863.62	9161863.73	9161863.84	0.1671	0.1307 *

Mercury	20373-07-24 14:52 G	9162349.98	9162350.12	9162350.26	0.1608	0.0142
Mercury	20380-03-20 16:33 G	9164781.08	9164781.19	9164781.31	0.1934	0.0811
Mercury	20382-12-14 22:33 G	9165780.32	9165780.44	9165780.56	0.1611	0.0845
Venus	20387-09-30 16:33 G	9167531.05	9167531.19	9167531.34	0.1936	0.1128
Mercury	20389-08-10 20:38 G	9168211.23	9168211.36	9168211.49	0.1929	0.0440
Venus	20390-07-07 15:21 G	9168542.00	9168542.14	9168542.28	0.1601	0.0958
Mercury	20392-05-06 06:28 G	9169210.73	9169210.77	9169210.80	0.1614	0.1543
Mercury	20394-04-12 00:14 G	9169916.44	9169916.51	9169916.58	0.1601	0.1404
Mercury	20399-01-01 00:00 G	9171641.44	9171641.50	9171641.55	0.1924	0.1735
Mercury	20403-09-02 07:26 G	9173346.69	9173346.81	9173346.94	0.1604	0.0680
Mercury	20413-01-22 15:07 G	9176776.99	9176777.13	9176777.27	0.1608	0.0043
Mercury	20419-09-19 17:02 G	9179208.09	9179208.21	9179208.32	0.1934	0.0947
Mercury	20422-06-14 22:48 G	9180207.33	9180207.45	9180207.57	0.1611	0.0744
Venus	20424-05-05 12:57 G	9180897.88	9180898.04	9180898.19	0.1608	0.0704
Mercury	20429-02-08 20:38 G	9182638.23	9182638.36	9182638.49	0.1930	0.0323
Mercury	20431-11-05 06:43 G	9183637.72	9183637.78	9183637.84	0.1615	0.1442
Mercury	20433-10-11 00:28 G	9184343.47	9184343.52	9184343.56	0.1601	0.1511
Mercury	20438-07-02 00:28 G	9186068.44	9186068.52	9186068.59	0.1924	0.1588
Mercury	20443-03-03 07:55 G	9187773.70	9187773.83	9187773.95	0.1604	0.0788
Mercury	20452-07-23 15:21 G	9191204.00	9191204.14	9191204.28	0.1607	0.0077
Venus	20453-07-27 18:14 G	9191573.09	9191573.26	9191573.43	0.1934	0.0419
Venus	20456-05-04 04:19 G	9192584.53	9192584.68	9192584.83	0.1603	0.0778
Mercury	20459-03-20 17:02 G	9193635.10	9193635.21	9193635.32	0.1934	0.1071
Mercury	20461-12-13 23:02 G	9194634.33	9194634.46	9194634.59	0.1611	0.0641
Mercury	20468-08-09 21:07 G	9197065.25	9197065.38	9197065.51	0.1930	0.0171
Mercury	20471-05-06 06:57 G	9198064.71	9198064.79	9198064.86	0.1614	0.1342
Mercury	20477-12-31 00:28 G	9200495.44	9200495.52	9200495.60	0.1924	0.1468
Mercury	20482-09-01 08:09 G	9202200.72	9202200.84	9202200.95	0.1604	0.0895
Venus	20490-03-03 01:26 G	9204940.42	9204940.56	9204940.70	0.1610	0.0899
Mercury	20492-01-22 15:36 G	9205631.01	9205631.15	9205631.29	0.1607	0.0178

Moon	20498-03-21 08:09 G	9207880.74	9207880.84	9207880.95	0.1656	0.1372
Earth	20498-03-21 15:07 G	9207881.00	9207881.13	9207881.26	0.1657	0.1211
Mercury	20498-09-18 17:31 G	9208062.13	9208062.23	9208062.33	0.1935	0.1216
Mercury	20501-06-14 23:16 G	9209061.34	9209061.47	9209061.60	0.1611	0.0532
Mercury	20508-02-09 21:21 G	9211492.26	9211492.39	9211492.52	0.1930	0.0049
Mercury	20510-11-05 06:57 G	9212491.71	9212491.79	9212491.88	0.1614	0.1239
Mercury	20517-07-02 00:43 G	9214922.44	9214922.53	9214922.63	0.1925	0.1325
Venus	20519-05-25 20:09 G	9215615.16	9215615.34	9215615.51	0.1931	0.0278
Venus	20522-03-02 16:48 G	9216627.04	9216627.20	9216627.36	0.1604	0.0585
Mercury	20522-03-03 08:24 G	9216627.74	9216627.85	9216627.96	0.1604	0.1002
Mercury	20531-07-24 15:50 G	9220058.02	9220058.16	9220058.30	0.1607	0.0282
Mercury	20538-03-20 17:31 G	9222489.14	9222489.23	9222489.33	0.1934	0.1338
Mercury	20540-12-13 23:31 G	9223488.34	9223488.48	9223488.61	0.1611	0.0432
Mercury	20547-08-10 21:36 G	9225919.26	9225919.40	9225919.53	0.1930	0.0108
Mercury	20550-05-06 07:26 G	9226918.71	9226918.81	9226918.90	0.1614	0.1133
Moon	20551-09-23 08:24 G	9227423.69	9227423.85	9227424.01	0.1881	0.0908
Earth	20551-09-23 12:00 G	9227423.84	9227424.00	9227424.16	0.1881	0.1109 *
Venus	20555-12-30 13:40 G	9228982.95	9228983.07	9228983.20	0.1612	0.1104
Mercury	20556-12-31 01:12 G	9229349.45	9229349.55	9229349.65	0.1925	0.1180
Mercury	20561-09-01 08:38 G	9231054.76	9231054.86	9231054.96	0.1604	0.1116
Mercury	20571-01-22 16:04 G	9234485.04	9234485.17	9234485.31	0.1607	0.0392
Moon	20577-03-24 20:09 G	9236738.14	9236738.34	9236738.54	0.1661	0.0371
Earth	20577-03-24 20:52 G	9236738.19	9236738.37	9236738.56	0.1661	0.0332 *
Mercury	20577-09-18 18:00 G	9236916.16	9236916.25	9236916.33	0.1935	0.1475
Mercury	20580-06-13 23:45 G	9237915.35	9237915.49	9237915.63	0.1610	0.0327
Venus	20585-03-21 21:50 G	9239657.25	9239657.41	9239657.56	0.1928	0.0972
Mercury	20587-02-08 21:50 G	9240346.28	9240346.41	9240346.54	0.1930	0.0229
Venus	20587-12-29 05:31 G	9240669.57	9240669.73	9240669.90	0.1606	0.0397
Mercury	20589-11-04 07:26 G	9241345.71	9241345.81	9241345.92	0.1614	0.1033
Mercury	20596-07-01 01:26 G	9243776.45	9243776.56	9243776.67	0.1925	0.1060

Mercury	20601-03-03 08:52 G	9245481.78	9245481.87	9245481.96	0.1604	0.1219
Mercury	20610-07-24 16:19 G	9248912.05	9248912.18	9248912.32	0.1607	0.0498
Mercury	20617-03-20 18:14 G	9251343.19	9251343.26	9251343.33	0.1935	0.1612
Mercury	20619-12-15 00:00 G	9252342.36	9252342.50	9252342.64	0.1610	0.0217
Venus	20621-10-28 02:38 G	9253025.50	9253025.61	9253025.71	0.1614	0.1300
Mercury	20626-08-10 22:04 G	9254773.29	9254773.42	9254773.55	0.1930	0.0368
Mercury	20629-05-06 07:40 G	9255772.71	9255772.82	9255772.94	0.1614	0.0928
Moon	20630-09-27 12:00 G	9256281.89	9256282.00	9256282.10	0.1875	0.1593
Mercury	20636-01-01 01:40 G	9258203.45	9258203.57	9258203.68	0.1925	0.0920
Mercury	20640-09-01 09:07 G	9259908.80	9259908.88	9259908.96	0.1604	0.1329
Mercury	20650-01-22 16:33 G	9263339.06	9263339.19	9263339.32	0.1607	0.0603
Venus	20651-01-18 00:14 G	9263699.42	9263699.51	9263699.60	0.1925	0.1630
Venus	20653-10-26 18:28 G	9264712.10	9264712.27	9264712.44	0.1607	0.0207
Mercury	20656-09-18 18:28 G	9265770.21	9265770.27	9265770.32	0.1935	0.1742
Mercury	20659-06-15 00:14 G	9266769.37	9266769.51	9266769.65	0.1610	0.0115
Mercury	20666-02-08 22:04 G	9269200.30	9269200.42	9269200.55	0.1930	0.0487
Mercury	20668-11-04 07:55 G	9270199.71	9270199.83	9270199.95	0.1614	0.0824
Mercury	20675-07-02 02:09 G	9272630.46	9272630.59	9272630.71	0.1925	0.0775
Mercury	20678-03-27 15:50 G	9273630.12	9273630.16	9273630.20	0.1618	0.1527
Mercury	20680-03-02 09:21 G	9274335.83	9274335.89	9274335.95	0.1604	0.1442
Venus	20683-01-18 03:50 G	9275387.62	9275387.66	9275387.69	0.1935	0.1881
Venus	20687-08-25 14:38 G	9277068.05	9277068.11	9277068.17	0.1615	0.1508
Mercury	20689-07-23 16:48 G	9277766.08	9277766.20	9277766.33	0.1607	0.0716
Mercury	20696-03-19 18:28 G	9280197.24	9280197.27	9280197.30	0.1935	0.1866
Mercury	20698-12-14 00:28 G	9281196.38	9281196.52	9281196.66	0.1610	0.0031
Mercury	20705-08-10 22:33 G	9283627.32	9283627.44	9283627.57	0.1930	0.0635
Mercury	20708-05-06 08:09 G	9284626.72	9284626.84	9284626.97	0.1614	0.0721
Mercury	20715-01-01 02:09 G	9287057.46	9287057.59	9287057.71	0.1925	0.0655
Mercury	20717-09-26 16:04 G	9288057.11	9288057.17	9288057.23	0.1618	0.1426
Venus	20719-08-25 06:57 G	9288754.61	9288754.79	9288754.96	0.1609	0.0045

Mercury	20719-09-02 09:36 G	9288762.87	9288762.90	9288762.94	0.1604	0.1550
Mercury	20729-01-22 17:02 G	9292193.09	9292193.21	9292193.33	0.1607	0.0821
Mercury	20738-06-15 00:43 G	9295623.39	9295623.53	9295623.67	0.1610	0.0102
Mercury	20745-02-08 22:48 G	9298054.33	9298054.45	9298054.57	0.1930	0.0762
Mercury	20747-11-05 08:24 G	9299053.72	9299053.85	9299053.98	0.1614	0.0616
Venus	20748-11-15 05:16 G	9299429.58	9299429.72	9299429.86	0.1932	0.1163
Venus	20751-08-23 22:33 G	9300441.38	9300441.44	9300441.50	0.1604	0.1499
Mercury	20754-07-02 02:24 G	9301484.48	9301484.60	9301484.73	0.1926	0.0512
Mercury	20757-03-27 16:19 G	9302484.10	9302484.18	9302484.25	0.1618	0.1326
Mercury	20763-11-22 06:00 G	9304914.70	9304914.75	9304914.79	0.1920	0.1806
Mercury	20768-07-23 17:16 G	9306620.11	9306620.22	9306620.34	0.1607	0.0927
Mercury	20777-12-14 00:57 G	9310050.40	9310050.54	9310050.68	0.1610	0.0206
Earth	20782-03-25 15:50 G	9311612.98	9311613.16	9311613.33	0.1652	0.0588
Moon	20782-03-25 16:48 G	9311613.04	9311613.20	9311613.37	0.1652	0.0643 *
Mercury	20784-08-09 23:02 G	9312481.34	9312481.46	9312481.57	0.1931	0.0893
Venus	20785-06-21 19:40 G	9312797.15	9312797.32	9312797.49	0.1611	0.0185
Mercury	20787-05-06 08:38 G	9313480.73	9313480.86	9313481.00	0.1614	0.0509
Mercury	20793-12-31 02:52 G	9315911.49	9315911.62	9315911.75	0.1926	0.0370
Mercury	20796-09-25 16:33 G	9316911.10	9316911.19	9316911.28	0.1617	0.1219
Mercury	20803-05-23 06:00 G	9319341.69	9319341.75	9319341.82	0.1920	0.1677
Mercury	20808-01-22 17:31 G	9321047.13	9321047.23	9321047.34	0.1606	0.1038
Venus	20814-09-12 06:57 G	9323471.62	9323471.79	9323471.96	0.1929	0.0462
Mercury	20817-06-14 01:12 G	9324477.41	9324477.55	9324477.69	0.1610	0.0312
Venus	20817-06-20 11:02 G	9324483.86	9324483.96	9324484.06	0.1605	0.1306
Mercury	20824-02-08 23:16 G	9326908.36	9326908.47	9326908.58	0.1931	0.1032
Mercury	20826-11-04 08:52 G	9327907.73	9327907.87	9327908.00	0.1613	0.0407
Mercury	20833-07-01 02:52 G	9330338.49	9330338.62	9330338.75	0.1926	0.0249
Earth	20835-09-24 22:48 G	9331154.35	9331154.45	9331154.54	0.1890	0.1646
Moon	20835-09-25 07:55 G	9331154.67	9331154.83	9331154.99	0.1889	0.1156
Mercury	20836-03-26 16:33 G	9331338.10	9331338.19	9331338.29	0.1617	0.1120

Mercury	20842-11-21 06:28 G	9333768.69	9333768.77	9333768.85	0.1920	0.1532
Mercury	20847-07-23 17:45 G	9335474.15	9335474.24	9335474.34	0.1607	0.1149
Venus	20851-04-19 07:55 G	9336839.66	9336839.83	9336840.00	0.1613	0.0392
Mercury	20856-12-13 01:26 G	9338904.42	9338904.56	9338904.70	0.1610	0.0422
Moon	20861-03-27 15:21 G	9340469.98	9340470.14	9340470.30	0.1655	0.0829
Earth	20861-03-27 20:38 G	9340470.21	9340470.36	9340470.52	0.1656	0.0936 *
Mercury	20863-08-09 23:31 G	9341335.38	9341335.48	9341335.58	0.1931	0.1166
Mercury	20866-05-05 09:07 G	9342334.74	9342334.88	9342335.02	0.1613	0.0301
Mercury	20872-12-30 03:21 G	9344765.50	9344765.64	9344765.77	0.1926	0.0126
Mercury	20875-09-25 16:48 G	9345765.10	9345765.20	9345765.31	0.1617	0.1016
Venus	20880-07-09 08:38 G	9347513.68	9347513.86	9347514.03	0.1926	0.0246
Mercury	20882-05-22 06:43 G	9348195.69	9348195.78	9348195.87	0.1920	0.1401
Venus	20883-04-17 23:45 G	9348526.36	9348526.49	9348526.61	0.1607	0.1117
Mercury	20887-01-21 18:00 G	9349901.17	9349901.25	9349901.34	0.1606	0.1253
Mercury	20896-06-13 01:40 G	9353331.43	9353331.57	9353331.70	0.1610	0.0526
Mercury	20903-02-08 23:31 G	9355762.39	9355762.48	9355762.58	0.1931	0.1291
Mercury	20905-11-04 09:21 G	9356761.75	9356761.89	9356762.03	0.1613	0.0193
Mercury	20912-07-01 03:36 G	9359192.52	9359192.65	9359192.78	0.1926	0.0040
Earth	20914-09-29 09:36 G	9360012.83	9360012.90	9360012.97	0.1883	0.1744
Moon	20914-09-29 12:43 G	9360012.94	9360013.03	9360013.13	0.1883	0.1615 *
Mercury	20915-03-27 17:02 G	9360192.10	9360192.21	9360192.33	0.1617	0.0910
Venus	20917-02-14 20:24 G	9360882.19	9360882.35	9360882.51	0.1615	0.0591
Mercury	20921-11-21 06:57 G	9362622.69	9362622.79	9362622.89	0.1920	0.1262
Mercury	20924-08-17 00:57 G	9363622.54	9363622.54	9363622.54	0.1621	0.1620
Mercury	20926-07-23 18:14 G	9364328.19	9364328.26	9364328.34	0.1606	0.1366
Mercury	20935-12-14 01:55 G	9367758.45	9367758.58	9367758.71	0.1610	0.0633
Mercury	20942-08-10 00:00 G	9370189.41	9370189.50	9370189.59	0.1931	0.1437
Mercury	20945-05-05 09:36 G	9371188.76	9371188.90	9371189.04	0.1613	0.0091
Venus	20946-05-07 10:48 G	9371555.79	9371555.95	9371556.10	0.1923	0.0929
Venus	20949-02-13 12:14 G	9372568.86	9372569.01	9372569.15	0.1609	0.0922

Mercury	20951-12-31 03:36 G	9373619.52	9373619.65	9373619.78	0.1926	0.0161
Mercury	20954-09-25 17:16 G	9374619.10	9374619.22	9374619.34	0.1617	0.0806
Mercury	20961-05-22 07:12 G	9377049.69	9377049.80	9377049.91	0.1921	0.1127
Mercury	20964-02-16 01:12 G	9378049.51	9378049.55	9378049.60	0.1621	0.1515
Mercury	20966-01-21 18:28 G	9378755.22	9378755.27	9378755.33	0.1606	0.1476
Mercury	20975-06-14 02:09 G	9382185.47	9382185.59	9382185.71	0.1609	0.0745
Mercury	20982-02-08 00:14 G	9384616.43	9384616.51	9384616.58	0.1931	0.1563
Venus	20982-12-13 08:38 G	9384924.71	9384924.86	9384925.01	0.1616	0.0800
Mercury	20984-11-03 09:50 G	9385615.77	9385615.91	9385616.05	0.1613	0.0037
Moon	20987-03-25 10:33 G	9386487.84	9386487.94	9386488.04	0.1643	0.1404
Earth	20987-03-25 12:28 G	9386487.93	9386488.02	9386488.12	0.1643	0.1427 *
Mercury	20991-07-01 04:04 G	9388046.54	9388046.67	9388046.80	0.1926	0.0306
Mercury	20994-03-26 17:31 G	9389046.10	9389046.23	9389046.35	0.1617	0.0704
Mercury	21000-11-21 07:26 G	9391476.70	9391476.81	9391476.93	0.1920	0.0989

22ND MILLENNIUM CE

This is a list of transits visible from Mars in the 22nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	21003-08-18 01:26 G		9392476.49	9392476.56	9392476.62	0.1621	0.1415	
Mercury	21005-07-23 18:43 G		9393182.26	9393182.28	9393182.30	0.1606	0.1583	
Venus	21012-03-04 12:28 G		9395597.93	9395598.02	9395598.12	0.1920	0.1614	
Venus	21014-12-13 00:43 G		9396611.38	9396611.53	9396611.69	0.1610	0.0728	
Mercury	21014-12-14 02:24 G		9396612.48	9396612.60	9396612.72	0.1610	0.0850	

Mercury	21021-08-10 00:28 G	9399043.46	9399043.52	9399043.58	0.1932	0.1698
Mercury	21024-05-05 10:04 G	9400042.78	9400042.92	9400043.06	0.1613	0.0128
Mercury	21030-12-31 04:19 G	9402473.55	9402473.68	9402473.81	0.1926	0.0444
Mercury	21033-09-25 17:45 G	9403473.11	9403473.24	9403473.37	0.1617	0.0595
Mercury	21040-05-22 07:40 G	9405903.70	9405903.82	9405903.94	0.1921	0.0858
Mercury	21043-02-16 01:26 G	9406903.49	9406903.56	9406903.64	0.1621	0.1314
Venus	21044-03-04 16:04 G	9407286.15	9407286.17	9407286.19	0.1930	0.1906
Venus	21048-10-10 21:07 G	9408967.25	9408967.38	9408967.52	0.1618	0.1005
Mercury	21054-06-14 02:38 G	9411039.49	9411039.61	9411039.72	0.1609	0.0959
Mercury	21061-02-08 00:43 G	9413470.49	9413470.53	9413470.56	0.1931	0.1833
Mercury	21063-11-04 10:19 G	9414469.79	9414469.93	9414470.06	0.1613	0.0235
Earth	21066-03-28 16:33 G	9415345.00	9415345.19	9415345.38	0.1647	0.0034
Moon	21066-03-28 22:33 G	9415345.24	9415345.44	9415345.63	0.1647	0.0076 *
Mercury	21070-07-01 04:19 G	9416900.56	9416900.68	9416900.81	0.1927	0.0567
Mercury	21073-03-26 18:00 G	9417900.11	9417900.25	9417900.38	0.1617	0.0493
Mercury	21079-11-21 08:09 G	9420330.71	9420330.84	9420330.96	0.1921	0.0711
Venus	21080-10-09 13:26 G	9420653.89	9420654.06	9420654.22	0.1612	0.0532
Mercury	21082-08-17 01:55 G	9421330.49	9421330.58	9421330.67	0.1621	0.1203
Mercury	21093-12-13 02:52 G	9425466.52	9425466.62	9425466.72	0.1609	0.1071
Mercury	21103-05-06 10:19 G	9428896.80	9428896.93	9428897.07	0.1613	0.0343
Mercury	21109-12-31 04:48 G	9431327.58	9431327.70	9431327.82	0.1927	0.0711
Venus	21109-12-31 18:00 G	9431328.11	9431328.25	9431328.38	0.1927	0.1205
Mercury	21112-09-25 18:14 G	9432327.12	9432327.26	9432327.39	0.1617	0.0388
Venus	21114-08-09 09:07 G	9433009.77	9433009.88	9433009.99	0.1620	0.1221
Mercury	21119-05-23 08:09 G	9434757.72	9434757.84	9434757.97	0.1921	0.0584
Mercury	21122-02-16 01:55 G	9435757.48	9435757.58	9435757.68	0.1621	0.1105
Mercury	21128-10-12 11:31 G	9438187.96	9438187.98	9438188.00	0.1915	0.1887
Mercury	21133-06-14 03:07 G	9439893.53	9439893.63	9439893.72	0.1609	0.1178
Mercury	21142-11-04 10:48 G	9443323.81	9443323.95	9443324.08	0.1613	0.0451
Earth	21145-03-31 21:07 G	9444202.31	9444202.38	9444202.44	0.1651	0.1542

Moon	21145-04-01 01:55 G	9444202.53	9444202.58	9444202.64	0.1651	0.1554
Venus	21146-08-08 01:40 G	9444696.40	9444696.57	9444696.74	0.1614	0.0327
Mercury	21149-07-01 05:02 G	9445754.60	9445754.71	9445754.83	0.1927	0.0854
Mercury	21152-03-26 18:28 G	9446754.13	9446754.27	9446754.40	0.1616	0.0282
Mercury	21158-11-21 08:38 G	9449184.73	9449184.86	9449184.99	0.1921	0.0446
Mercury	21161-08-17 02:09 G	9450184.48	9450184.59	9450184.70	0.1620	0.1000
Mercury	21168-04-12 12:00 G	9452614.94	9452615.00	9452615.05	0.1915	0.1742
Mercury	21172-12-13 03:21 G	9454320.55	9454320.64	9454320.72	0.1609	0.1287
Venus	21175-10-28 19:40 G	9455370.15	9455370.32	9455370.49	0.1924	0.0498
Venus	21180-06-05 21:36 G	9457052.32	9457052.40	9457052.48	0.1622	0.1434
Mercury	21182-05-05 10:48 G	9457750.82	9457750.95	9457751.09	0.1613	0.0558
Mercury	21188-12-30 05:02 G	9460181.60	9460181.71	9460181.83	0.1927	0.0973
Mercury	21191-09-25 18:43 G	9461181.14	9461181.28	9461181.41	0.1616	0.0180
Mercury	21198-05-22 08:52 G	9463611.74	9463611.87	9463612.00	0.1922	0.0303
Earth	21198-09-30 20:09 G	9463743.19	9463743.34	9463743.48	0.1892	0.1243
Moon	21198-10-01 00:43 G	9463743.37	9463743.53	9463743.69	0.1892	0.1256 *
Mercury	21201-02-15 02:24 G	9464611.49	9464611.60	9464611.72	0.1620	0.0892
Mercury	21207-10-12 12:14 G	9467041.94	9467042.01	9467042.08	0.1915	0.1598
Mercury	21210-07-08 10:19 G	9468041.92	9468041.93	9468041.95	0.1624	0.1607
Venus	21212-06-04 14:24 G	9468738.93	9468739.10	9468739.27	0.1615	0.0131
Mercury	21212-06-13 03:36 G	9468747.59	9468747.65	9468747.72	0.1609	0.1403
Mercury	21221-11-03 11:02 G	9472177.84	9472177.96	9472178.09	0.1612	0.0664
Mercury	21228-06-30 05:31 G	9474608.62	9474608.73	9474608.84	0.1927	0.1120
Mercury	21231-03-26 18:43 G	9475608.14	9475608.28	9475608.42	0.1616	0.0074
Mercury	21237-11-20 09:07 G	9478038.75	9478038.88	9478039.01	0.1921	0.0167
Mercury	21240-08-16 02:38 G	9479038.49	9479038.61	9479038.73	0.1620	0.0788
Venus	21241-08-24 21:50 G	9479412.23	9479412.41	9479412.58	0.1921	0.0188
Mercury	21247-04-12 12:28 G	9481468.93	9481469.02	9481469.10	0.1916	0.1475
Mercury	21250-01-06 10:33 G	9482468.89	9482468.94	9482468.99	0.1624	0.1502
Mercury	21251-12-13 03:50 G	9483174.61	9483174.66	9483174.70	0.1609	0.1510

Mercury	21261-05-04 11:31 G	9486604.85	9486604.98	9486605.10	0.1612	0.0778
Mercury	21267-12-30 05:45 G	9489035.65	9489035.74	9489035.84	0.1927	0.1262
Mercury	21270-09-24 18:57 G	9490035.15	9490035.29	9490035.43	0.1616	0.0064
Moon	21271-03-28 08:24 G	9490219.70	9490219.85	9490220.01	0.1638	0.0850
Earth	21271-03-28 14:09 G	9490219.93	9490220.09	9490220.26	0.1638	0.0792 *
Mercury	21277-05-21 09:21 G	9492465.75	9492465.89	9492466.02	0.1922	0.0050
Venus	21278-04-02 02:24 G	9492781.43	9492781.60	9492781.77	0.1618	0.0083
Mercury	21280-02-15 02:52 G	9493465.49	9493465.62	9493465.74	0.1620	0.0684
Mercury	21286-10-11 12:57 G	9495895.94	9495896.04	9495896.13	0.1916	0.1319
Mercury	21289-07-07 10:48 G	9496895.88	9496895.95	9496896.02	0.1624	0.1401
Mercury	21300-11-03 11:31 G	9501031.87	9501031.98	9501032.10	0.1612	0.0882
Venus	21307-06-22 23:45 G	9503454.33	9503454.49	9503454.64	0.1918	0.0881
Mercury	21307-07-01 06:00 G	9503462.66	9503462.75	9503462.84	0.1927	0.1383
Mercury	21310-03-26 19:12 G	9504462.17	9504462.30	9504462.44	0.1616	0.0158
Venus	21310-04-01 18:43 G	9504468.21	9504468.28	9504468.35	0.1611	0.1457
Mercury	21316-11-20 09:50 G	9506892.77	9506892.91	9506893.04	0.1922	0.0138
Mercury	21319-08-17 03:07 G	9507892.50	9507892.63	9507892.76	0.1620	0.0572
Mercury	21326-04-12 12:57 G	9510322.94	9510323.04	9510323.15	0.1916	0.1189
Mercury	21329-01-06 11:02 G	9511322.88	9511322.96	9511323.04	0.1624	0.1297
Mercury	21340-05-04 11:45 G	9515458.88	9515458.99	9515459.10	0.1612	0.0995
Venus	21344-01-29 14:52 G	9516823.95	9516824.12	9516824.30	0.1620	0.0287
Mercury	21346-12-30 06:14 G	9517889.69	9517889.76	9517889.84	0.1928	0.1533
Mercury	21349-09-24 19:26 G	9518889.17	9518889.31	9518889.45	0.1616	0.0259
Moon	21350-03-31 12:43 G	9519076.85	9519077.03	9519077.20	0.1642	0.0703
Earth	21350-03-31 18:43 G	9519077.10	9519077.28	9519077.45	0.1642	0.0675 *
Mercury	21356-05-21 09:50 G	9521319.78	9521319.91	9521320.04	0.1922	0.0243
Mercury	21359-02-15 03:21 G	9522319.50	9522319.64	9522319.77	0.1620	0.0472
Mercury	21365-10-11 13:26 G	9524749.94	9524750.06	9524750.17	0.1916	0.1050
Mercury	21368-07-07 11:16 G	9525749.88	9525749.97	9525750.06	0.1624	0.1187
Venus	21373-04-19 02:24 G	9527496.50	9527496.60	9527496.70	0.1914	0.1541

Venus	21376-01-28 07:12 G	9528510.69	9528510.80	9528510.91	0.1613	0.1259
Mercury	21379-11-03 12:14 G	9529885.91	9529886.01	9529886.11	0.1612	0.1108
Mercury	21386-06-30 06:28 G	9532316.71	9532316.77	9532316.84	0.1928	0.1672
Mercury	21389-03-25 19:40 G	9533316.19	9533316.32	9533316.46	0.1616	0.0370
Mercury	21395-11-20 10:04 G	9535746.79	9535746.92	9535747.05	0.1922	0.0392
Mercury	21398-08-16 03:36 G	9536746.51	9536746.65	9536746.78	0.1620	0.0364
Mercury	21405-04-12 13:40 G	9539176.95	9539177.07	9539177.19	0.1916	0.0903
Mercury	21408-01-07 11:16 G	9540176.87	9540176.97	9540177.08	0.1624	0.1087
Venus	21409-11-27 03:07 G	9540866.47	9540866.63	9540866.80	0.1622	0.0496
Mercury	21419-05-05 12:14 G	9544312.92	9544313.01	9544313.11	0.1612	0.1216
Mercury	21425-12-30 06:43 G	9546743.73	9546743.78	9546743.82	0.1928	0.1793
Mercury	21428-09-24 19:55 G	9547743.20	9547743.33	9547743.47	0.1616	0.0481
Mercury	21435-05-22 10:33 G	9550173.81	9550173.94	9550174.06	0.1923	0.0535
Mercury	21438-02-15 03:50 G	9551173.52	9551173.66	9551173.80	0.1620	0.0250
Venus	21441-11-25 19:40 G	9552553.20	9552553.32	9552553.45	0.1615	0.1065
Mercury	21444-10-11 13:55 G	9553603.96	9553604.08	9553604.21	0.1916	0.0763
Mercury	21447-07-08 11:31 G	9554603.88	9554603.98	9554604.09	0.1624	0.0980
Mercury	21458-11-03 12:28 G	9558739.95	9558740.02	9558740.10	0.1612	0.1327
Mercury	21468-03-25 20:09 G	9562170.21	9562170.34	9562170.47	0.1616	0.0586
Venus	21471-02-15 07:12 G	9563226.67	9563226.80	9563226.93	0.1923	0.1267
Mercury	21474-11-20 10:48 G	9564600.82	9564600.95	9564601.07	0.1922	0.0668
Venus	21475-09-24 15:36 G	9564908.99	9564909.15	9564909.31	0.1624	0.0704
Earth	21476-03-28 14:38 G	9565095.06	9565095.11	9565095.16	0.1631	0.1557
Moon	21476-03-28 19:55 G	9565095.26	9565095.33	9565095.41	0.1631	0.1511
Mercury	21477-08-16 04:04 G	9565600.53	9565600.67	9565600.81	0.1620	0.0149
Moon	21482-10-01 20:52 G	9567473.18	9567473.37	9567473.55	0.1901	0.0582
Earth	21482-10-02 05:45 G	9567473.55	9567473.74	9567473.92	0.1900	0.0669 *
Mercury	21484-04-11 14:09 G	9568030.96	9568031.09	9568031.22	0.1917	0.0631
Mercury	21487-01-06 12:00 G	9569030.88	9569031.00	9569031.11	0.1624	0.0871
Mercury	21496-05-28 19:55 G	9572461.30	9572461.33	9572461.35	0.1628	0.1589

Mercury	21498-05-04 12:57 G	9573166.98	9573167.04	9573167.10	0.1612	0.1443
Venus	21507-09-24 08:24 G	9576595.70	9576595.85	9576595.99	0.1617	0.0867
Mercury	21507-09-25 20:24 G	9576597.23	9576597.35	9576597.48	0.1615	0.0702
Mercury	21514-05-22 11:02 G	9579027.84	9579027.96	9579028.08	0.1923	0.0805
Mercury	21517-02-15 04:04 G	9580027.54	9580027.67	9580027.81	0.1619	0.0066
Mercury	21523-10-12 14:38 G	9582457.98	9582458.11	9582458.24	0.1917	0.0476
Mercury	21526-07-08 12:00 G	9583457.88	9583458.00	9583458.12	0.1624	0.0766
Mercury	21533-03-03 17:45 G	9585888.20	9585888.24	9585888.28	0.1911	0.1805
Mercury	21535-11-28 20:09 G	9586888.28	9586888.34	9586888.39	0.1628	0.1487
Venus	21536-12-13 09:36 G	9587268.73	9587268.90	9587269.07	0.1919	0.0583
Mercury	21537-11-03 13:12 G	9587594.01	9587594.05	9587594.08	0.1612	0.1552
Venus	21541-07-23 03:36 G	9588951.51	9588951.65	9588951.79	0.1626	0.0923
Mercury	21547-03-26 20:38 G	9591024.24	9591024.36	9591024.48	0.1616	0.0812
Mercury	21553-11-20 11:16 G	9593454.86	9593454.97	9593455.09	0.1923	0.0960
Earth	21555-04-01 17:16 G	9593952.03	9593952.22	9593952.41	0.1634	0.0133
Moon	21555-04-01 22:04 G	9593952.24	9593952.42	9593952.60	0.1634	0.0116 *
Mercury	21556-08-16 04:33 G	9594454.55	9594454.69	9594454.83	0.1619	0.0078
Mercury	21563-04-12 14:52 G	9596884.99	9596885.12	9596885.25	0.1917	0.0344
Mercury	21566-01-06 12:14 G	9597884.89	9597885.01	9597885.14	0.1623	0.0658
Mercury	21572-09-01 18:14 G	9600315.19	9600315.26	9600315.32	0.1911	0.1645
Venus	21573-07-21 20:38 G	9600638.20	9600638.36	9600638.52	0.1619	0.0660
Mercury	21575-05-29 20:24 G	9601315.28	9601315.35	9601315.42	0.1628	0.1381
Mercury	21586-09-24 20:52 G	9605451.26	9605451.37	9605451.49	0.1615	0.0921
Mercury	21593-05-21 11:31 G	9607881.87	9607881.98	9607882.09	0.1923	0.1079
Mercury	21596-02-15 04:33 G	9608881.56	9608881.69	9608881.83	0.1619	0.0189
Venus	21602-10-10 11:31 G	9611310.81	9611310.98	9611311.16	0.1916	0.0116
Mercury	21602-10-11 15:07 G	9611312.00	9611312.13	9611312.26	0.1917	0.0201
Mercury	21605-07-07 12:28 G	9612311.89	9612312.02	9612312.15	0.1623	0.0547
Venus	21607-05-20 15:50 G	9612994.04	9612994.16	9612994.29	0.1628	0.1138
Mercury	21612-03-02 18:28 G	9614742.19	9614742.27	9614742.35	0.1911	0.1501

Mercury	21614-11-27 20:24 G	9615742.27	9615742.35	9615742.44	0.1628	0.1274
Mercury	21626-03-25 21:07 G	9619878.28	9619878.38	9619878.49	0.1615	0.1033
Mercury	21632-11-19 11:45 G	9622308.89	9622308.99	9622309.09	0.1923	0.1231
Moon	21634-04-03 19:12 G	9622809.21	9622809.30	9622809.39	0.1638	0.1416
Earth	21634-04-03 21:36 G	9622809.29	9622809.40	9622809.51	0.1638	0.1337 *
Mercury	21635-08-16 05:02 G	9623308.57	9623308.71	9623308.84	0.1619	0.0297
Venus	21639-05-19 09:21 G	9624680.72	9624680.89	9624681.06	0.1621	0.0463
Mercury	21642-04-11 15:36 G	9625739.01	9625739.15	9625739.28	0.1917	0.0079
Mercury	21645-01-05 12:43 G	9626738.90	9626739.03	9626739.16	0.1623	0.0442
Mercury	21651-09-01 18:43 G	9629169.19	9629169.28	9629169.37	0.1911	0.1373
Mercury	21654-05-28 20:38 G	9630169.27	9630169.36	9630169.46	0.1628	0.1167
Mercury	21665-09-23 21:36 G	9634305.30	9634305.40	9634305.49	0.1615	0.1149
Venus	21668-08-06 14:24 G	9635352.94	9635353.10	9635353.26	0.1912	0.0763
Mercury	21672-05-20 12:14 G	9636735.92	9636736.01	9636736.10	0.1923	0.1376
Venus	21673-03-17 03:50 G	9637036.57	9637036.66	9637036.76	0.1630	0.1362
Mercury	21675-02-14 05:16 G	9637735.58	9637735.72	9637735.85	0.1619	0.0408
Mercury	21681-10-10 15:50 G	9640166.03	9640166.16	9640166.29	0.1917	0.0089
Mercury	21684-07-06 12:57 G	9641165.90	9641166.04	9641166.18	0.1623	0.0332
Mercury	21691-03-02 19:12 G	9643596.19	9643596.30	9643596.40	0.1911	0.1222
Mercury	21693-11-26 20:52 G	9644596.27	9644596.37	9644596.47	0.1627	0.1062
Venus	21705-03-16 21:21 G	9648723.21	9648723.39	9648723.56	0.1623	0.0248
Mercury	21705-03-25 21:36 G	9648732.32	9648732.40	9648732.49	0.1615	0.1258
Mercury	21711-11-20 12:28 G	9651162.94	9651163.02	9651163.10	0.1923	0.1507
Mercury	21714-08-16 05:31 G	9652162.59	9652162.73	9652162.86	0.1619	0.0517
Mercury	21721-04-11 16:04 G	9654593.03	9654593.17	9654593.30	0.1918	0.0226
Mercury	21724-01-06 13:12 G	9655592.92	9655593.05	9655593.19	0.1623	0.0221
Mercury	21730-09-01 19:26 G	9658023.20	9658023.31	9658023.43	0.1912	0.1068
Mercury	21733-05-28 21:07 G	9659023.27	9659023.38	9659023.49	0.1627	0.0950
Venus	21734-06-04 16:33 G	9659395.08	9659395.19	9659395.31	0.1909	0.1441
Venus	21739-01-13 16:04 G	9661079.13	9661079.17	9661079.20	0.1632	0.1588

Mercury	21744-09-23 22:04 G	9663159.34	9663159.42	9663159.49	0.1615	0.1373
Mercury	21751-05-21 12:43 G	9665589.96	9665590.03	9665590.09	0.1924	0.1647
Mercury	21754-02-14 05:31 G	9666589.61	9666589.73	9666589.86	0.1619	0.0627
Moon	21760-03-31 13:55 G	9668826.92	9668827.08	9668827.24	0.1627	0.0900
Earth	21760-03-31 19:12 G	9668827.14	9668827.30	9668827.46	0.1627	0.0874 *
Mercury	21760-10-10 16:33 G	9669020.06	9669020.19	9669020.32	0.1918	0.0381
Mercury	21763-07-07 13:26 G	9670019.92	9670020.06	9670020.20	0.1623	0.0112
Earth	21766-10-03 12:57 G	9671203.84	9671204.04	9671204.24	0.1909	0.0037
Moon	21766-10-03 21:07 G	9671204.19	9671204.38	9671204.56	0.1908	0.0498 *
Mercury	21770-03-02 19:40 G	9672450.20	9672450.32	9672450.43	0.1912	0.0946
Venus	21771-01-12 09:50 G	9672765.74	9672765.91	9672766.08	0.1625	0.0041
Mercury	21772-11-26 21:21 G	9673450.27	9673450.39	9673450.51	0.1627	0.0844
Mercury	21782-04-19 05:31 G	9676880.69	9676880.73	9676880.76	0.1632	0.1567
Mercury	21784-03-24 22:19 G	9677586.38	9677586.43	9677586.48	0.1615	0.1487
Mercury	21790-11-19 13:12 G	9680017.00	9680017.05	9680017.09	0.1924	0.1804
Mercury	21793-08-15 06:00 G	9681016.63	9681016.75	9681016.87	0.1619	0.0742
Mercury	21800-04-11 16:33 G	9683447.07	9683447.19	9683447.32	0.1918	0.0512
Mercury	21803-01-06 13:40 G	9684446.93	9684447.07	9684447.21	0.1623	0.0006
Venus	21803-01-12 02:24 G	9684452.60	9684452.60	9684452.61	0.1618	0.1618
Mercury	21809-09-01 20:09 G	9686877.22	9686877.34	9686877.46	0.1912	0.0783
Mercury	21812-05-28 21:36 G	9687877.28	9687877.40	9687877.52	0.1627	0.0735
Mercury	21821-10-19 05:31 G	9691307.68	9691307.73	9691307.79	0.1632	0.1467
Mercury	21823-09-24 22:33 G	9692013.42	9692013.44	9692013.45	0.1615	0.1598
Mercury	21830-05-21 13:12 G	9694444.05	9694444.05	9694444.05	0.1924	0.1923
Venus	21832-04-01 21:21 G	9695125.27	9695125.39	9695125.51	0.1917	0.1369
Mercury	21833-02-14 06:14 G	9695443.64	9695443.76	9695443.87	0.1619	0.0852
Venus	21836-11-09 22:04 G	9696808.24	9696808.42	9696808.59	0.1627	0.0180
Earth	21839-04-04 21:50 G	9697684.23	9697684.41	9697684.58	0.1630	0.0549
Moon	21839-04-04 23:31 G	9697684.29	9697684.48	9697684.67	0.1630	0.0461 *
Mercury	21839-10-11 17:02 G	9697874.08	9697874.21	9697874.33	0.1918	0.0658

Mercury	21842-07-07 13:55 G	9698873.94	9698874.08	9698874.22	0.1623	0.0117
Mercury	21849-03-02 20:24 G	9701304.23	9701304.35	9701304.48	0.1912	0.0641
Mercury	21851-11-27 21:50 G	9702304.28	9702304.41	9702304.54	0.1627	0.0626
Mercury	21861-04-19 05:45 G	9705734.67	9705734.74	9705734.81	0.1631	0.1359
Venus	21868-11-08 15:07 G	9708495.05	9708495.13	9708495.21	0.1620	0.1418
Mercury	21872-08-15 06:28 G	9709870.66	9709870.77	9709870.88	0.1618	0.0965
Mercury	21879-04-11 17:16 G	9712301.10	9712301.22	9712301.34	0.1918	0.0798
Mercury	21882-01-05 14:09 G	9713300.95	9713301.09	9713301.23	0.1623	0.0219
Mercury	21888-08-31 20:38 G	9715731.23	9715731.36	9715731.49	0.1912	0.0509
Mercury	21891-05-28 22:04 G	9716731.29	9716731.42	9716731.55	0.1627	0.0516
Mercury	21898-01-22 00:00 G	9719161.46	9719161.50	9719161.53	0.1906	0.1818
Venus	21898-01-28 00:00 G	9719167.34	9719167.50	9719167.67	0.1914	0.0703
Mercury	21900-10-19 06:00 G	9720161.67	9720161.75	9720161.84	0.1631	0.1247
Venus	21902-09-08 10:04 G	9720850.76	9720850.92	9720851.09	0.1629	0.0391
Mercury	21912-02-15 06:43 G	9724297.68	9724297.78	9724297.88	0.1618	0.1079
Mercury	21918-10-11 17:31 G	9726728.12	9726728.23	9726728.35	0.1918	0.0942
Mercury	21921-07-07 14:24 G	9727727.96	9727728.10	9727728.23	0.1622	0.0331
Mercury	21928-03-02 21:07 G	9730158.24	9730158.38	9730158.51	0.1912	0.0358
Mercury	21930-11-27 22:19 G	9731158.29	9731158.43	9731158.56	0.1627	0.0409
Venus	21934-09-07 03:21 G	9732537.53	9732537.64	9732537.75	0.1622	0.1214
Mercury	21937-07-24 00:14 G	9733588.45	9733588.51	9733588.57	0.1906	0.1678
Mercury	21940-04-19 06:14 G	9734588.66	9734588.76	9734588.86	0.1631	0.1143
Mercury	21951-08-16 06:57 G	9738724.69	9738724.79	9738724.88	0.1618	0.1191
Mercury	21958-04-11 17:45 G	9741155.13	9741155.24	9741155.35	0.1919	0.1083
Mercury	21961-01-05 14:38 G	9742154.98	9742155.11	9742155.25	0.1622	0.0448
Venus	21963-11-26 02:52 G	9743209.45	9743209.62	9743209.80	0.1910	0.0051
Earth	21965-04-01 21:50 G	9743702.37	9743702.41	9743702.45	0.1620	0.1574
Moon	21965-04-02 02:52 G	9743702.57	9743702.62	9743702.67	0.1620	0.1547
Mercury	21967-09-01 21:21 G	9744585.26	9744585.39	9744585.53	0.1913	0.0211
Venus	21968-07-05 22:04 G	9744893.26	9744893.42	9744893.59	0.1631	0.0614

Mercury	21970-05-28 22:33 G	9745585.30	9745585.44	9745585.58	0.1626	0.0295
Mercury	21977-01-22 00:28 G	9748015.44	9748015.52	9748015.60	0.1906	0.1536
Mercury	21979-10-19 06:28 G	9749015.66	9749015.77	9749015.87	0.1631	0.1036
Mercury	21991-02-14 07:12 G	9753151.72	9753151.80	9753151.88	0.1618	0.1303
Mercury	21997-10-10 18:14 G	9755582.16	9755582.26	9755582.36	0.1919	0.1232
Venus	22000-07-04 15:50 G	9756580.02	9756580.16	9756580.29	0.1624	0.1007
Mercury	22000-07-06 14:52 G	9756581.99	9756582.12	9756582.25	0.1622	0.0556

23RD MILLENNIUM CE

This is a list of transits visible from Mars in the 23rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	22007-03-02 21:36 G		9759012.26	9759012.40	9759012.53	0.1913	0.0091	
Mercury	22009-11-26 22:48 G		9760012.31	9760012.45	9760012.58	0.1627	0.0188	
Mercury	22016-07-23 00:57 G		9762442.45	9762442.54	9762442.63	0.1907	0.1379	
Mercury	22019-04-19 06:43 G		9763442.67	9763442.78	9763442.89	0.1631	0.0922	
Venus	22029-09-22 05:31 G		9767251.56	9767251.73	9767251.89	0.1907	0.0633	
Mercury	22030-08-15 07:26 G		9767578.75	9767578.81	9767578.88	0.1618	0.1422	
Venus	22034-05-03 10:19 G		9768935.78	9768935.93	9768936.08	0.1634	0.0833	
Mercury	22037-04-10 18:28 G		9770009.18	9770009.27	9770009.36	0.1919	0.1366	
Mercury	22040-01-05 15:07 G		9771009.00	9771009.13	9771009.25	0.1622	0.0667	
Moon	22044-04-03 22:04 G		9772559.24	9772559.42	9772559.59	0.1623	0.0155	
Earth	22044-04-04 00:28 G		9772559.33	9772559.52	9772559.70	0.1623	0.0183	*
Mercury	22046-08-31 22:04 G		9773439.28	9773439.42	9773439.55	0.1913	0.0088	

Mercury	22049-05-27 23:02 G	9774439.32	9774439.46	9774439.60	0.1626	0.0083
Moon	22050-10-04 18:28 G	9774934.05	9774934.27	9774934.48	0.1916	0.0506
Earth	22050-10-04 18:57 G	9774934.11	9774934.29	9774934.47	0.1916	0.0819 *
Mercury	22056-01-22 01:12 G	9776869.45	9776869.55	9776869.65	0.1906	0.1247
Mercury	22058-10-18 06:57 G	9777869.67	9777869.79	9777869.90	0.1631	0.0820
Venus	22066-05-02 04:04 G	9780622.52	9780622.67	9780622.82	0.1626	0.0802
Mercury	22068-03-09 14:52 G	9781300.08	9781300.12	9781300.16	0.1636	0.1549
Mercury	22070-02-13 07:40 G	9782005.78	9782005.82	9782005.86	0.1618	0.1532
Mercury	22076-10-09 18:43 G	9784436.20	9784436.28	9784436.36	0.1919	0.1516
Mercury	22079-07-06 15:21 G	9785436.02	9785436.14	9785436.26	0.1622	0.0785
Mercury	22086-03-01 22:19 G	9787866.30	9787866.43	9787866.56	0.1913	0.0224
Mercury	22088-11-25 23:16 G	9788866.33	9788866.47	9788866.60	0.1626	0.0055
Venus	22095-07-20 08:38 G	9791293.73	9791293.86	9791293.99	0.1903	0.1278
Mercury	22095-07-23 01:26 G	9791296.45	9791296.56	9791296.67	0.1907	0.1098
Mercury	22098-04-18 06:57 G	9792296.67	9792296.79	9792296.92	0.1631	0.0711
Venus	22100-02-28 22:04 G	9792978.29	9792978.42	9792978.55	0.1636	0.1065
Mercury	22107-09-09 15:07 G	9795727.07	9795727.13	9795727.19	0.1635	0.1444
Mercury	22116-04-10 18:57 G	9798863.23	9798863.29	9798863.36	0.1919	0.1652
Mercury	22119-01-05 15:36 G	9799863.03	9799863.15	9799863.26	0.1622	0.0892
Moon	22123-04-07 19:40 G	9801416.18	9801416.32	9801416.47	0.1626	0.1016
Earth	22123-04-08 02:24 G	9801416.48	9801416.60	9801416.73	0.1626	0.1234
Mercury	22125-08-31 22:33 G	9802293.31	9802293.44	9802293.57	0.1913	0.0359
Mercury	22128-05-27 23:31 G	9803293.34	9803293.48	9803293.62	0.1626	0.0151
Venus	22132-02-28 16:04 G	9804665.01	9804665.17	9804665.33	0.1628	0.0580
Mercury	22135-01-22 01:55 G	9805723.46	9805723.58	9805723.70	0.1907	0.0945
Mercury	22137-10-18 07:26 G	9806723.68	9806723.81	9806723.93	0.1630	0.0596
Mercury	22147-03-10 15:21 G	9810154.06	9810154.14	9810154.21	0.1635	0.1338
Mercury	22155-10-10 19:12 G	9813290.26	9813290.30	9813290.35	0.1919	0.1798
Mercury	22158-07-06 15:50 G	9814290.05	9814290.16	9814290.27	0.1622	0.1006
Mercury	22165-03-01 22:48 G	9816720.33	9816720.45	9816720.58	0.1913	0.0514

Venus	22165-12-27 10:04 G	9817020.82	9817020.92	9817021.03	0.1639	0.1296
Mercury	22167-11-26 23:31 G	9817720.35	9817720.48	9817720.62	0.1626	0.0262
Mercury	22174-07-23 02:09 G	9820150.47	9820150.59	9820150.71	0.1907	0.0811
Mercury	22177-04-18 07:26 G	9821150.68	9821150.81	9821150.94	0.1631	0.0491
Mercury	22186-09-08 15:36 G	9824581.06	9824581.15	9824581.24	0.1635	0.1225
Venus	22193-05-17 12:14 G	9827023.90	9827024.01	9827024.12	0.1912	0.1490
Venus	22197-12-26 04:33 G	9828707.52	9828707.69	9828707.86	0.1631	0.0372
Mercury	22198-01-04 16:04 G	9828717.07	9828717.17	9828717.27	0.1622	0.1125
Mercury	22204-08-31 23:16 G	9831147.34	9831147.47	9831147.60	0.1913	0.0660
Mercury	22207-05-28 23:45 G	9832147.36	9832147.49	9832147.63	0.1626	0.0374
Mercury	22214-01-22 02:24 G	9834577.48	9834577.60	9834577.73	0.1907	0.0666
Mercury	22216-10-18 07:40 G	9835577.69	9835577.82	9835577.95	0.1630	0.0381
Mercury	22226-03-10 15:36 G	9839008.06	9839008.15	9839008.25	0.1635	0.1123
Venus	22231-10-25 22:19 G	9841063.37	9841063.43	9841063.49	0.1641	0.1525
Mercury	22237-07-06 16:19 G	9843144.09	9843144.18	9843144.27	0.1621	0.1233
Mercury	22244-03-01 23:16 G	9845574.35	9845574.47	9845574.59	0.1914	0.0785
Mercury	22246-11-27 00:00 G	9846574.37	9846574.50	9846574.64	0.1626	0.0484
Earth	22249-04-05 03:21 G	9847434.48	9847434.64	9847434.80	0.1617	0.0882
Moon	22249-04-05 06:28 G	9847434.60	9847434.77	9847434.94	0.1617	0.0877 *
Mercury	22253-07-23 02:52 G	9849004.49	9849004.62	9849004.75	0.1908	0.0507
Mercury	22256-04-18 07:55 G	9850004.70	9850004.83	9850004.97	0.1630	0.0267
Venus	22259-03-15 14:52 G	9851065.96	9851066.12	9851066.27	0.1908	0.0818
Mercury	22262-12-13 05:45 G	9852434.72	9852434.74	9852434.77	0.1900	0.1847
Venus	22263-10-24 16:19 G	9852750.01	9852750.18	9852750.35	0.1633	0.0144
Mercury	22265-09-08 15:50 G	9853435.06	9853435.16	9853435.27	0.1635	0.1013
Mercury	22277-01-04 16:33 G	9857571.11	9857571.19	9857571.26	0.1621	0.1346
Mercury	22283-08-31 23:45 G	9860001.38	9860001.49	9860001.61	0.1914	0.0947
Mercury	22286-05-28 00:14 G	9861001.38	9861001.51	9861001.64	0.1626	0.0594
Mercury	22293-01-21 03:07 G	9863431.49	9863431.63	9863431.76	0.1907	0.0381
Mercury	22295-10-18 08:09 G	9864431.70	9864431.84	9864431.98	0.1630	0.0159

Mercury	22302-06-14 06:00 G	9866861.70	9866861.75	9866861.81	0.1901	0.1708
Mercury	22305-03-10 16:04 G	9867862.06	9867862.17	9867862.29	0.1635	0.0902
Mercury	22316-07-06 16:48 G	9871998.15	9871998.20	9871998.26	0.1621	0.1466
Mercury	22323-03-03 00:00 G	9874428.39	9874428.50	9874428.61	0.1914	0.1086
Venus	22325-01-10 18:00 G	9875108.08	9875108.25	9875108.42	0.1905	0.0167
Mercury	22325-11-27 00:28 G	9875428.40	9875428.52	9875428.65	0.1625	0.0706
Earth	22328-04-08 05:31 G	9876291.55	9876291.73	9876291.91	0.1619	0.0507
Moon	22328-04-08 12:14 G	9876291.84	9876292.01	9876292.18	0.1620	0.0718 *
Venus	22329-08-22 04:19 G	9876792.51	9876792.68	9876792.85	0.1635	0.0079
Mercury	22332-07-23 03:21 G	9877858.51	9877858.64	9877858.78	0.1908	0.0231
Moon	22334-10-06 17:16 G	9878664.15	9878664.22	9878664.29	0.1924	0.1756
Earth	22334-10-06 22:19 G	9878664.35	9878664.43	9878664.51	0.1924	0.1760
Mercury	22335-04-19 08:24 G	9878858.71	9878858.85	9878858.98	0.1630	0.0062
Mercury	22341-12-13 06:28 G	9881288.70	9881288.77	9881288.85	0.1901	0.1554
Mercury	22344-09-08 16:19 G	9882289.06	9882289.18	9882289.30	0.1635	0.0795
Mercury	22354-01-30 00:28 G	9885719.47	9885719.52	9885719.56	0.1640	0.1536
Mercury	22356-01-05 17:02 G	9886425.18	9886425.21	9886425.24	0.1621	0.1575
Venus	22361-08-20 22:04 G	9888479.37	9888479.42	9888479.46	0.1627	0.1560
Mercury	22362-09-01 00:14 G	9888855.41	9888855.51	9888855.61	0.1914	0.1221
Mercury	22365-05-28 00:43 G	9889855.41	9889855.53	9889855.65	0.1625	0.0822
Mercury	22372-01-22 03:50 G	9892285.52	9892285.66	9892285.79	0.1908	0.0081
Mercury	22374-10-18 08:38 G	9893285.72	9893285.86	9893286.00	0.1630	0.0068
Mercury	22381-06-13 06:43 G	9895715.69	9895715.78	9895715.87	0.1901	0.1416
Mercury	22384-03-09 16:33 G	9896716.06	9896716.19	9896716.31	0.1635	0.0688
Venus	22390-11-07 20:52 G	9899150.20	9899150.37	9899150.54	0.1901	0.0487
Mercury	22393-07-31 00:43 G	9900146.46	9900146.53	9900146.59	0.1639	0.1428
Venus	22395-06-19 16:04 G	9900835.00	9900835.17	9900835.34	0.1638	0.0311
Mercury	22402-03-02 00:43 G	9903282.43	9903282.53	9903282.62	0.1914	0.1371
Mercury	22404-11-26 00:57 G	9904282.43	9904282.54	9904282.65	0.1625	0.0930
Mercury	22411-07-23 03:50 G	9906712.53	9906712.66	9906712.80	0.1908	0.0082

Moon	22413-10-10 07:40 G	9907522.76	9907522.82	9907522.87	0.1918	0.1844
Mercury	22414-04-18 08:38 G	9907712.73	9907712.86	9907713.00	0.1630	0.0181
Mercury	22420-12-12 07:12 G	9910142.70	9910142.80	9910142.90	0.1902	0.1267
Mercury	22423-09-08 16:48 G	9911143.07	9911143.20	9911143.33	0.1634	0.0571
Venus	22427-06-18 10:04 G	9912521.83	9912521.92	9912522.02	0.1630	0.1343
Mercury	22433-01-29 00:43 G	9914573.45	9914573.53	9914573.61	0.1639	0.1320
Mercury	22441-08-31 00:57 G	9917709.46	9917709.54	9917709.62	0.1914	0.1516
Mercury	22444-05-27 01:12 G	9918709.44	9918709.55	9918709.65	0.1625	0.1045
Mercury	22451-01-21 04:19 G	9921139.54	9921139.68	9921139.81	0.1908	0.0205
Mercury	22453-10-17 08:52 G	9922139.74	9922139.87	9922140.01	0.1630	0.0288
Moon	22454-04-05 05:02 G	9922309.67	9922309.71	9922309.76	0.1611	0.1558
Earth	22454-04-05 07:26 G	9922309.77	9922309.81	9922309.85	0.1611	0.1567
Venus	22456-09-03 23:45 G	9923192.35	9923192.49	9923192.63	0.1897	0.1140
Mercury	22460-06-12 07:26 G	9924569.70	9924569.81	9924569.92	0.1901	0.1121
Venus	22461-04-16 03:50 G	9924877.50	9924877.66	9924877.82	0.1640	0.0545
Mercury	22463-03-09 16:48 G	9925570.07	9925570.20	9925570.34	0.1634	0.0471
Mercury	22472-07-30 00:57 G	9929000.45	9929000.54	9929000.63	0.1639	0.1212
Mercury	22481-03-01 00:57 G	9932136.48	9932136.54	9932136.61	0.1915	0.1645
Mercury	22483-11-26 01:26 G	9933136.46	9933136.56	9933136.65	0.1625	0.1160
Mercury	22490-07-22 04:48 G	9935566.56	9935566.70	9935566.83	0.1909	0.0364
Venus	22493-04-14 22:04 G	9936564.30	9936564.42	9936564.55	0.1632	0.1127
Mercury	22493-04-17 09:07 G	9936566.75	9936566.88	9936567.02	0.1629	0.0406
Mercury	22499-12-12 07:40 G	9938996.71	9938996.82	9938996.94	0.1901	0.0977
Mercury	22502-09-08 17:02 G	9939997.08	9939997.21	9939997.35	0.1634	0.0358
Mercury	22512-01-30 01:12 G	9943427.45	9943427.55	9943427.65	0.1639	0.1107
Mercury	22520-08-31 01:26 G	9946563.52	9946563.56	9946563.60	0.1915	0.1803
Venus	22522-07-03 02:52 G	9947234.57	9947234.62	9947234.68	0.1893	0.1776
Mercury	22523-05-28 01:40 G	9947563.48	9947563.57	9947563.65	0.1625	0.1273
Venus	22527-02-12 15:36 G	9948919.99	9948920.15	9948920.30	0.1643	0.0786
Mercury	22530-01-21 04:48 G	9949993.57	9949993.70	9949993.83	0.1908	0.0485

Mercury	22532-10-17 09:21 G	9950993.76	9950993.89	9950994.02	0.1630	0.0510
Moon	22533-04-08 02:38 G	9951166.43	9951166.61	9951166.80	0.1613	0.0370
Earth	22533-04-08 08:52 G	9951166.68	9951166.87	9951167.06	0.1613	0.0198 *
Mercury	22539-06-13 07:55 G	9953423.71	9953423.83	9953423.96	0.1902	0.0836
Mercury	22542-03-09 17:16 G	9954424.09	9954424.22	9954424.36	0.1634	0.0246
Mercury	22551-07-31 01:26 G	9957854.45	9957854.56	9957854.66	0.1639	0.0995
Venus	22554-07-03 02:09 G	9958922.50	9958922.59	9958922.69	0.1906	0.1582
Venus	22559-02-11 09:50 G	9960606.77	9960606.91	9960607.06	0.1634	0.0898
Mercury	22562-11-26 01:40 G	9961990.50	9961990.57	9961990.65	0.1625	0.1386
Mercury	22569-07-22 05:02 G	9964420.59	9964420.71	9964420.84	0.1909	0.0643
Mercury	22572-04-17 09:36 G	9965420.77	9965420.90	9965421.03	0.1629	0.0621
Mercury	22578-12-12 08:24 G	9967850.72	9967850.85	9967850.98	0.1902	0.0684
Mercury	22581-09-07 17:31 G	9968851.09	9968851.23	9968851.37	0.1634	0.0136
Mercury	22591-01-29 01:26 G	9972281.45	9972281.56	9972281.68	0.1639	0.0887
Venus	22592-12-10 03:07 G	9972962.50	9972962.63	9972962.77	0.1645	0.1025
Mercury	22600-06-21 09:36 G	9975711.89	9975711.90	9975711.92	0.1644	0.1630
Mercury	22602-05-28 02:09 G	9976417.54	9976417.59	9976417.64	0.1625	0.1503
Mercury	22609-01-21 05:31 G	9978847.61	9978847.73	9978847.85	0.1909	0.0788
Mercury	22611-10-18 09:50 G	9979847.79	9979847.91	9979848.03	0.1629	0.0737
Moon	22612-04-11 08:38 G	9980023.75	9980023.86	9980023.98	0.1616	0.1304
Earth	22612-04-11 10:19 G	9980023.80	9980023.93	9980024.06	0.1616	0.1179 *
Mercury	22618-06-13 08:38 G	9982277.73	9982277.86	9982277.99	0.1902	0.0547
Venus	22620-04-30 05:31 G	9982964.58	9982964.73	9982964.88	0.1902	0.0934
Mercury	22621-03-09 17:45 G	9983278.10	9983278.24	9983278.37	0.1634	0.0048
Venus	22624-12-09 22:04 G	9984649.26	9984649.42	9984649.58	0.1637	0.0681
Mercury	22627-11-03 11:45 G	9985707.97	9985707.99	9985708.01	0.1895	0.1869
Mercury	22630-07-31 01:40 G	9986708.45	9986708.57	9986708.69	0.1639	0.0779
Mercury	22639-12-21 09:50 G	9990138.86	9990138.91	9990138.95	0.1644	0.1529
Mercury	22641-11-26 02:09 G	9990844.58	9990844.59	9990844.61	0.1625	0.1612
Mercury	22648-07-22 05:31 G	9993274.62	9993274.73	9993274.85	0.1909	0.0920

Mercury	22651-04-18 10:04 G	9994274.80	9994274.92	9994275.03	0.1629	0.0849
Mercury	22657-12-12 08:52 G	9996704.74	9996704.87	9996705.01	0.1903	0.0397
Venus	22658-10-08 14:52 G	9997005.01	9997005.12	9997005.23	0.1648	0.1266
Mercury	22660-09-07 18:00 G	9997705.11	9997705.25	9997705.39	0.1634	0.0093
Mercury	22667-05-04 12:00 G	10000134.95	10000135.00	10000135.05	0.1895	0.1730
Mercury	22670-01-29 01:55 G	10001135.45	10001135.58	10001135.70	0.1638	0.0670
Mercury	22679-06-21 09:50 G	10004565.85	10004565.91	10004565.98	0.1644	0.1420
Venus	22686-02-25 08:24 G	10007006.68	10007006.85	10007007.02	0.1898	0.0277
Mercury	22688-01-21 06:00 G	10007701.64	10007701.75	10007701.86	0.1909	0.1070
Venus	22690-10-07 09:36 G	10008691.73	10008691.90	10008692.07	0.1639	0.0445
Mercury	22690-10-17 10:19 G	10008701.82	10008701.93	10008702.04	0.1629	0.0962
Mercury	22697-06-12 09:07 G	10011131.75	10011131.88	10011132.02	0.1902	0.0258
Earth	22697-10-11 15:36 G	10011253.00	10011253.15	10011253.31	0.1926	0.1213
Moon	22697-10-11 17:45 G	10011253.11	10011253.24	10011253.37	0.1925	0.1361 *
Mercury	22700-03-09 18:00 G	10012132.12	10012132.25	10012132.39	0.1634	0.0198
Mercury	22706-11-03 12:14 G	10014561.94	10014562.01	10014562.08	0.1896	0.1594
Mercury	22709-07-31 02:09 G	10015562.46	10015562.59	10015562.71	0.1639	0.0559
Mercury	22718-12-21 10:04 G	10018992.85	10018992.92	10018993.00	0.1643	0.1309
Venus	22724-08-06 02:09 G	10021047.53	10021047.59	10021047.66	0.1651	0.1522
Mercury	22727-07-23 06:28 G	10022128.66	10022128.77	10022128.87	0.1909	0.1224
Mercury	22730-04-18 10:19 G	10023128.83	10023128.93	10023129.04	0.1629	0.1078
Mercury	22736-12-12 09:36 G	10025558.76	10025558.90	10025559.03	0.1903	0.0121
Earth	22738-04-09 13:12 G	10026041.89	10026042.05	10026042.20	0.1608	0.0886
Moon	22738-04-09 19:40 G	10026042.16	10026042.32	10026042.48	0.1608	0.0755 *
Mercury	22739-09-08 18:14 G	10026559.13	10026559.26	10026559.40	0.1633	0.0309
Mercury	22746-05-04 12:43 G	10028988.94	10028989.03	10028989.11	0.1896	0.1437
Mercury	22749-01-29 02:09 G	10029989.46	10029989.59	10029989.72	0.1638	0.0451
Venus	22751-12-24 11:45 G	10031048.82	10031048.99	10031049.17	0.1894	0.0364
Venus	22756-08-04 21:21 G	10032734.22	10032734.39	10032734.57	0.1642	0.0216
Mercury	22758-06-21 10:19 G	10033419.84	10033419.93	10033420.02	0.1643	0.1202

Mercury	22767-01-21 06:28 G	10036555.67	10036555.77	10036555.86	0.1909	0.1345
Mercury	22769-10-17 10:33 G	10037555.85	10037555.94	10037556.04	0.1629	0.1189
Mercury	22776-06-12 09:50 G	10039985.77	10039985.91	10039986.04	0.1903	0.0042
Mercury	22779-03-09 18:28 G	10040986.14	10040986.27	10040986.40	0.1633	0.0425
Mercury	22785-11-02 12:57 G	10043415.94	10043416.04	10043416.14	0.1896	0.1286
Mercury	22788-07-30 02:24 G	10044416.47	10044416.60	10044416.73	0.1638	0.0338
Mercury	22797-12-20 10:33 G	10047846.84	10047846.94	10047847.04	0.1643	0.1097
Mercury	22806-07-22 06:43 G	10050982.70	10050982.78	10050982.87	0.1910	0.1503
Mercury	22809-04-17 10:48 G	10051982.87	10051982.95	10051983.03	0.1629	0.1301
Mercury	22815-12-12 10:04 G	10054412.79	10054412.92	10054413.06	0.1903	0.0186
Earth	22817-04-11 14:09 G	10054898.91	10054899.09	10054899.27	0.1610	0.0479
Moon	22817-04-11 16:04 G	10054899.00	10054899.17	10054899.34	0.1610	0.0355 *
Venus	22817-10-20 14:52 G	10055090.98	10055091.12	10055091.27	0.1890	0.1002
Mercury	22818-09-07 18:43 G	10055413.15	10055413.28	10055413.41	0.1633	0.0535
Venus	22822-06-02 08:52 G	10056776.70	10056776.87	10056777.05	0.1644	0.0045
Mercury	22825-05-03 13:12 G	10057842.94	10057843.05	10057843.15	0.1896	0.1161
Mercury	22828-01-29 02:38 G	10058843.47	10058843.61	10058843.74	0.1638	0.0228
Mercury	22837-06-20 10:48 G	10062273.84	10062273.95	10062274.05	0.1643	0.0982
Mercury	22846-01-20 07:12 G	10065409.73	10065409.80	10065409.86	0.1910	0.1652
Mercury	22848-10-16 11:02 G	10066409.90	10066409.96	10066410.03	0.1628	0.1420
Mercury	22855-06-12 10:19 G	10068839.80	10068839.93	10068840.06	0.1903	0.0323
Mercury	22858-03-08 18:43 G	10069840.16	10069840.28	10069840.41	0.1633	0.0647
Mercury	22864-11-01 13:40 G	10072269.95	10072270.07	10072270.18	0.1896	0.0993
Mercury	22867-07-30 02:52 G	10073270.48	10073270.62	10073270.75	0.1638	0.0129
Mercury	22876-12-19 10:48 G	10076700.84	10076700.95	10076701.06	0.1643	0.0877
Venus	22883-08-17 18:28 G	10079133.18	10079133.27	10079133.35	0.1886	0.1630
Mercury	22885-07-21 07:12 G	10079836.76	10079836.80	10079836.85	0.1910	0.1779
Mercury	22886-05-11 18:57 G	10080131.28	10080131.29	10080131.31	0.1648	0.1625
Venus	22888-03-29 20:24 G	10080819.18	10080819.35	10080819.52	0.1647	0.0274
Mercury	22888-04-16 11:16 G	10080836.93	10080836.97	10080837.01	0.1629	0.1533

Mercury	22894-12-11 10:48 G	10083266.82	10083266.95	10083267.08	0.1904	0.0482
Mercury	22897-09-06 19:12 G	10084267.18	10084267.30	10084267.42	0.1633	0.0766
Mercury	22904-05-03 13:55 G	10086696.96	10086697.08	10086697.20	0.1896	0.0855
Mercury	22907-01-29 02:52 G	10087697.49	10087697.62	10087697.76	0.1638	0.0032
Venus	22915-08-18 17:02 G	10090821.13	10090821.21	10090821.28	0.1899	0.1702
Mercury	22916-06-20 11:02 G	10091127.84	10091127.96	10091128.08	0.1643	0.0765
Venus	22920-03-29 15:21 G	10092506.06	10092506.14	10092506.22	0.1638	0.1439
Mercury	22925-11-10 19:12 G	10094558.25	10094558.30	10094558.34	0.1648	0.1524
Mercury	22934-06-12 10:48 G	10097693.83	10097693.95	10097694.08	0.1903	0.0618
Mercury	22937-03-08 19:12 G	10098694.19	10098694.30	10098694.42	0.1633	0.0872
Earth	22943-04-09 18:14 G	10100917.21	10100917.26	10100917.31	0.1603	0.1538
Mercury	22943-11-02 14:09 G	10101123.96	10101124.09	10101124.21	0.1897	0.0714
Mercury	22946-07-30 03:07 G	10102124.50	10102124.63	10102124.77	0.1638	0.0115
Venus	22954-01-26 07:55 G	10104861.66	10104861.83	10104861.99	0.1650	0.0522
Mercury	22955-12-20 11:16 G	10105554.84	10105554.97	10105555.09	0.1643	0.0652
Mercury	22965-05-11 19:12 G	10108985.24	10108985.30	10108985.37	0.1648	0.1414
Mercury	22973-12-11 11:16 G	10112120.85	10112120.97	10112121.09	0.1904	0.0765
Mercury	22976-09-06 19:26 G	10113121.20	10113121.31	10113121.42	0.1633	0.0988
Venus	22981-06-14 19:40 G	10114863.17	10114863.32	10114863.46	0.1895	0.1031
Earth	22981-10-12 13:26 G	10114982.86	10114983.06	10114983.27	0.1933	0.0059
Moon	22981-10-12 20:24 G	10114983.14	10114983.35	10114983.57	0.1932	0.0466 *
Mercury	22983-05-03 14:24 G	10115550.97	10115551.10	10115551.23	0.1897	0.0559
Venus	22986-01-25 02:52 G	10116548.51	10116548.62	10116548.74	0.1641	0.1204
Mercury	22986-01-28 03:21 G	10116551.50	10116551.64	10116551.77	0.1638	0.0219
Mercury	22995-06-20 11:16 G	10119981.85	10119981.97	10119982.10	0.1643	0.0546

24TH MILLENNIUM CE

This is a list of transits visible from Mars in the 24th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	23004-11-10 19:26	G	10123412.23	10123412.31	10123412.39	0.1648	0.1302	
Mercury	23013-06-12 11:31	G	10126547.86	10126547.98	10126548.10	0.1904	0.0915	
Mercury	23016-03-08 19:40	G	10127548.22	10127548.32	10127548.42	0.1633	0.1107	
Venus	23019-11-24 19:26	G	10128904.16	10128904.31	10128904.46	0.1652	0.0771	
Moon	23022-04-12 18:14	G	10129774.06	10129774.26	10129774.47	0.1605	0.0104	
Earth	23022-04-12 19:26	G	10129774.12	10129774.31	10129774.49	0.1605	0.0197	*
Mercury	23022-11-02 14:52	G	10129977.99	10129978.12	10129978.25	0.1897	0.0407	
Mercury	23025-07-30 03:36	G	10130978.51	10130978.65	10130978.78	0.1637	0.0335	
Mercury	23032-03-24 17:45	G	10133408.19	10133408.24	10133408.28	0.1890	0.1760	
Mercury	23034-12-20 11:31	G	10134408.85	10134408.98	10134409.11	0.1642	0.0435	
Mercury	23044-05-11 19:40	G	10137839.23	10137839.32	10137839.41	0.1648	0.1194	
Venus	23047-04-12 23:31	G	10138905.31	10138905.48	10138905.65	0.1892	0.0412	
Venus	23051-11-23 14:52	G	10140590.99	10140591.12	10140591.26	0.1643	0.0981	
Mercury	23052-12-11 11:45	G	10140974.88	10140974.99	10140975.11	0.1904	0.1059	
Mercury	23055-09-07 19:55	G	10141975.24	10141975.33	10141975.42	0.1633	0.1218	
Mercury	23062-05-03 14:52	G	10144404.99	10144405.12	10144405.26	0.1897	0.0279	
Mercury	23065-01-28 03:50	G	10145405.52	10145405.66	10145405.79	0.1637	0.0450	
Mercury	23071-09-23 18:14	G	10147835.19	10147835.26	10147835.33	0.1890	0.1595	
Mercury	23074-06-20 11:45	G	10148835.86	10148835.99	10148836.12	0.1642	0.0318	
Mercury	23083-11-10 19:55	G	10152266.22	10152266.33	10152266.43	0.1648	0.1087	
Venus	23085-09-21 06:57	G	10152946.65	10152946.79	10152946.92	0.1655	0.1020	
Mercury	23092-06-11 12:00	G	10155401.90	10155402.00	10155402.11	0.1904	0.1198	

Mercury	23095-03-08 19:55 G	10156402.26	10156402.33	10156402.41	0.1632	0.1332
Earth	23101-04-15 19:55 G	10158631.20	10158631.33	10158631.46	0.1607	0.1163
Moon	23101-04-16 01:55 G	10158631.44	10158631.58	10158631.72	0.1607	0.1073 *
Mercury	23101-11-02 15:21 G	10158832.01	10158832.14	10158832.28	0.1897	0.0123
Mercury	23104-07-30 03:50 G	10159832.54	10159832.66	10159832.79	0.1637	0.0561
Mercury	23111-03-25 18:14 G	10162262.17	10162262.26	10162262.34	0.1890	0.1469
Venus	23113-02-08 02:52 G	10162947.44	10162947.62	10162947.79	0.1887	0.0226
Mercury	23113-12-20 12:00 G	10163262.86	10163263.00	10163263.13	0.1642	0.0213
Venus	23117-09-21 02:09 G	10164633.44	10164633.59	10164633.75	0.1646	0.0736
Mercury	23123-05-12 20:09 G	10166693.23	10166693.34	10166693.44	0.1647	0.0970
Mercury	23131-12-12 12:28 G	10169828.93	10169829.02	10169829.11	0.1905	0.1359
Mercury	23134-09-07 20:24 G	10170829.29	10170829.35	10170829.41	0.1632	0.1454
Mercury	23141-05-03 15:36 G	10173259.02	10173259.15	10173259.29	0.1897	0.0059
Mercury	23144-01-29 04:04 G	10174259.55	10174259.67	10174259.80	0.1637	0.0674
Mercury	23150-09-23 18:43 G	10176689.18	10176689.28	10176689.38	0.1890	0.1305
Venus	23151-07-20 18:14 G	10176989.15	10176989.26	10176989.36	0.1658	0.1283
Mercury	23153-06-20 12:00 G	10177689.87	10177690.00	10177690.14	0.1642	0.0111
Mercury	23162-11-10 20:09 G	10181120.22	10181120.34	10181120.45	0.1647	0.0865
Mercury	23171-06-12 12:43 G	10184255.95	10184256.03	10184256.11	0.1904	0.1492
Mercury	23172-04-02 04:19 G	10184550.66	10184550.68	10184550.70	0.1653	0.1625
Mercury	23174-03-08 20:24 G	10185256.32	10185256.35	10185256.39	0.1632	0.1565
Venus	23178-12-06 06:43 G	10186989.63	10186989.78	10186989.94	0.1884	0.0839
Mercury	23180-11-01 15:50 G	10187686.03	10187686.16	10187686.30	0.1898	0.0185
Venus	23183-07-19 13:55 G	10188675.92	10188676.08	10188676.25	0.1649	0.0503
Mercury	23183-07-30 04:19 G	10188686.56	10188686.68	10188686.80	0.1637	0.0795
Mercury	23190-03-24 19:12 G	10191116.19	10191116.30	10191116.40	0.1890	0.1153
Mercury	23192-12-19 12:14 G	10192116.88	10192117.01	10192117.15	0.1642	0.0049
Mercury	23202-05-11 20:24 G	10195547.23	10195547.35	10195547.47	0.1647	0.0752
Mercury	23210-12-11 12:57 G	10198682.98	10198683.04	10198683.11	0.1905	0.1645
Mercury	23211-10-02 04:33 G	10198977.64	10198977.69	10198977.74	0.1653	0.1516

Venus	23217-05-17 05:45 G	10201031.68	10201031.74	10201031.80	0.1661	0.1533
Mercury	23220-05-02 16:19 G	10202113.05	10202113.18	10202113.31	0.1898	0.0331
Mercury	23223-01-28 04:33 G	10203113.57	10203113.69	10203113.80	0.1637	0.0904
Earth	23227-04-13 00:57 G	10204649.38	10204649.54	10204649.70	0.1600	0.0847
Moon	23227-04-13 01:26 G	10204649.42	10204649.56	10204649.70	0.1600	0.0935 *
Mercury	23229-09-22 19:12 G	10205543.19	10205543.30	10205543.42	0.1890	0.1018
Mercury	23232-06-19 12:28 G	10206543.89	10206544.02	10206544.16	0.1642	0.0131
Mercury	23241-11-09 20:38 G	10209974.23	10209974.36	10209974.48	0.1647	0.0636
Venus	23244-10-02 10:33 G	10211031.83	10211031.94	10211032.05	0.1879	0.1449
Venus	23249-05-16 01:26 G	10212718.39	10212718.56	10212718.73	0.1651	0.0254
Mercury	23250-06-11 13:26 G	10213110.02	10213110.06	10213110.10	0.1905	0.1798
Mercury	23251-04-02 04:48 G	10213404.63	10213404.70	10213404.76	0.1652	0.1406
Mercury	23259-11-01 16:33 G	10216540.06	10216540.19	10216540.33	0.1898	0.0483
Mercury	23262-07-29 04:48 G	10217540.59	10217540.70	10217540.80	0.1637	0.1021
Moon	23265-10-13 01:55 G	10218712.42	10218712.58	10218712.74	0.1939	0.1149
Earth	23265-10-13 11:16 G	10218712.81	10218712.97	10218713.12	0.1939	0.1215
Mercury	23269-03-23 19:40 G	10219970.20	10219970.32	10219970.44	0.1891	0.0860
Mercury	23271-12-19 12:43 G	10220970.89	10220971.03	10220971.16	0.1642	0.0245
Venus	23276-10-02 07:40 G	10222719.77	10222719.82	10222719.86	0.1893	0.1823
Mercury	23281-05-10 20:38 G	10224401.24	10224401.36	10224401.49	0.1647	0.0528
Mercury	23290-10-01 04:48 G	10227831.62	10227831.70	10227831.79	0.1652	0.1294
Mercury	23299-05-02 16:48 G	10230967.07	10230967.20	10230967.33	0.1898	0.0616
Mercury	23302-01-28 05:02 G	10231967.61	10231967.71	10231967.81	0.1637	0.1140
Moon	23306-04-15 20:38 G	10233506.20	10233506.36	10233506.53	0.1602	0.0622
Earth	23306-04-16 01:55 G	10233506.40	10233506.58	10233506.76	0.1602	0.0505 *
Mercury	23308-09-22 20:09 G	10234397.21	10234397.34	10234397.47	0.1891	0.0695
Mercury	23311-06-20 12:57 G	10235397.91	10235398.04	10235398.17	0.1641	0.0364
Venus	23315-03-14 12:43 G	10236760.85	10236761.03	10236761.20	0.1654	0.0015
Mercury	23320-11-09 20:52 G	10238828.24	10238828.37	10238828.50	0.1647	0.0416
Mercury	23330-04-02 05:02 G	10242258.62	10242258.71	10242258.80	0.1652	0.1185

Mercury	23338-11-01 17:16 G	10245394.10	10245394.22	10245394.35	0.1898	0.0784
Mercury	23341-07-29 05:16 G	10246394.63	10246394.72	10246394.80	0.1636	0.1255
Venus	23342-07-31 11:31 G	10246761.85	10246761.98	10246762.12	0.1889	0.1202
Mercury	23348-03-23 20:09 G	10248824.21	10248824.34	10248824.47	0.1891	0.0572
Mercury	23350-12-19 12:57 G	10249824.91	10249825.04	10249825.17	0.1642	0.0478
Mercury	23360-05-10 21:07 G	10253255.25	10253255.38	10253255.51	0.1647	0.0296
Mercury	23369-10-01 05:16 G	10256685.62	10256685.72	10256685.82	0.1652	0.1071
Mercury	23378-05-02 17:31 G	10259821.11	10259821.23	10259821.35	0.1898	0.0923
Venus	23381-01-09 00:14 G	10260803.34	10260803.51	10260803.68	0.1657	0.0251
Mercury	23381-01-27 05:16 G	10260821.65	10260821.72	10260821.80	0.1636	0.1371
Mercury	23387-09-22 20:38 G	10263251.23	10263251.36	10263251.50	0.1891	0.0408
Mercury	23390-06-19 13:12 G	10264251.93	10264252.05	10264252.18	0.1641	0.0592
Mercury	23397-02-11 23:31 G	10266681.44	10266681.48	10266681.53	0.1884	0.1757
Mercury	23399-11-09 21:21 G	10267682.25	10267682.39	10267682.52	0.1646	0.0195
Venus	23408-05-28 14:52 G	10270803.95	10270804.12	10270804.29	0.1885	0.0557
Mercury	23409-04-02 05:31 G	10271112.62	10271112.73	10271112.83	0.1652	0.0958
Venus	23413-01-08 19:55 G	10272490.27	10272490.33	10272490.40	0.1648	0.1522
Mercury	23417-11-01 17:45 G	10274248.13	10274248.24	10274248.36	0.1899	0.1074
Mercury	23420-07-29 05:45 G	10275248.68	10275248.74	10275248.79	0.1636	0.1494
Mercury	23427-03-24 21:07 G	10277678.24	10277678.38	10277678.52	0.1892	0.0249
Mercury	23429-12-19 13:26 G	10278678.94	10278679.06	10278679.19	0.1641	0.0709
Moon	23432-04-13 07:55 G	10279524.73	10279524.83	10279524.93	0.1596	0.1371
Earth	23432-04-13 08:52 G	10279524.79	10279524.87	10279524.95	0.1596	0.1452 *
Mercury	23436-08-14 00:00 G	10281108.43	10281108.50	10281108.57	0.1884	0.1603
Mercury	23439-05-11 21:21 G	10282109.26	10282109.39	10282109.53	0.1646	0.0088
Venus	23446-11-07 11:31 G	10284845.82	10284845.98	10284846.15	0.1660	0.0507
Mercury	23448-10-01 05:31 G	10285539.62	10285539.73	10285539.85	0.1652	0.0848
Mercury	23457-05-02 18:14 G	10288675.16	10288675.26	10288675.36	0.1899	0.1226
Mercury	23458-02-21 13:40 G	10288970.05	10288970.07	10288970.10	0.1657	0.1621
Mercury	23460-01-28 05:45 G	10289675.72	10289675.74	10289675.76	0.1636	0.1606

Mercury	23466-09-22 21:21 G	10292105.25	10292105.39	10292105.53	0.1892	0.0112
Mercury	23469-06-19 13:40 G	10293105.95	10293106.07	10293106.19	0.1641	0.0825
Venus	23474-03-25 19:12 G	10294846.13	10294846.30	10294846.48	0.1881	0.0054
Mercury	23476-02-13 00:14 G	10295535.43	10295535.51	10295535.60	0.1885	0.1450
Venus	23478-11-06 07:55 G	10296532.72	10296532.83	10296532.93	0.1650	0.1292
Mercury	23478-11-09 21:50 G	10296536.27	10296536.41	10296536.54	0.1646	0.0064
Mercury	23488-04-01 05:45 G	10299966.62	10299966.74	10299966.86	0.1651	0.0734
Mercury	23496-10-31 18:28 G	10303102.18	10303102.27	10303102.37	0.1899	0.1377
Mercury	23497-08-22 13:55 G	10303397.03	10303397.08	10303397.13	0.1657	0.1506
Mercury	23506-03-24 21:50 G	10306532.27	10306532.41	10306532.54	0.1892	0.0076
Mercury	23508-12-19 13:55 G	10307532.97	10307533.08	10307533.19	0.1641	0.0940
Earth	23511-04-17 08:38 G	10308381.68	10308381.86	10308382.05	0.1598	0.0132
Moon	23511-04-17 14:38 G	10308381.92	10308382.11	10308382.30	0.1598	0.0172 *
Venus	23512-09-04 22:48 G	10308888.30	10308888.45	10308888.61	0.1663	0.0764
Mercury	23515-08-15 00:43 G	10309962.43	10309962.53	10309962.63	0.1884	0.1296
Mercury	23518-05-11 21:50 G	10310963.28	10310963.41	10310963.55	0.1646	0.0158
Mercury	23527-10-02 06:00 G	10314393.63	10314393.75	10314393.87	0.1652	0.0617
Mercury	23536-05-02 18:43 G	10317529.20	10317529.28	10317529.36	0.1899	0.1520
Mercury	23537-02-21 14:09 G	10317824.02	10317824.09	10317824.16	0.1657	0.1391
Venus	23540-01-21 23:16 G	10318888.31	10318888.47	10318888.64	0.1876	0.0643
Venus	23544-09-03 18:57 G	10320575.16	10320575.29	10320575.43	0.1653	0.1042
Mercury	23545-09-22 22:19 G	10320959.29	10320959.43	10320959.56	0.1892	0.0218
Mercury	23548-06-19 14:09 G	10321959.99	10321960.09	10321960.19	0.1641	0.1061
Mercury	23555-02-13 00:57 G	10324389.43	10324389.54	10324389.65	0.1885	0.1150
Mercury	23557-11-09 22:04 G	10325390.28	10325390.42	10325390.55	0.1646	0.0273
Mercury	23567-04-02 06:14 G	10328820.63	10328820.76	10328820.88	0.1651	0.0509
Mercury	23575-11-01 19:12 G	10331956.24	10331956.30	10331956.36	0.1899	0.1683
Mercury	23576-08-22 14:24 G	10332251.01	10332251.10	10332251.18	0.1657	0.1282
Venus	23578-07-03 10:04 G	10332930.79	10332930.92	10332931.06	0.1666	0.1030
Mercury	23585-03-23 22:19 G	10335386.29	10335386.43	10335386.56	0.1892	0.0340

Mercury	23587-12-19 14:24 G	10336387.00	10336387.10	10336387.19	0.1641	0.1176
Earth	23590-04-19 09:21 G	10337238.77	10337238.89	10337239.01	0.1600	0.1223
Moon	23590-04-19 13:40 G	10337238.99	10337239.07	10337239.14	0.1600	0.1450 *
Mercury	23594-08-14 01:26 G	10338816.44	10338816.56	10338816.68	0.1885	0.0985
Mercury	23597-05-10 22:19 G	10339817.30	10339817.43	10339817.56	0.1646	0.0396
Venus	23605-11-18 03:50 G	10342930.53	10342930.66	10342930.79	0.1873	0.1228
Mercury	23606-10-01 06:28 G	10343247.63	10343247.77	10343247.90	0.1651	0.0394
Venus	23610-07-02 06:43 G	10344617.63	10344617.78	10344617.94	0.1656	0.0805
Mercury	23615-05-02 19:26 G	10346383.28	10346383.31	10346383.35	0.1899	0.1822
Mercury	23616-02-21 14:24 G	10346678.01	10346678.10	10346678.19	0.1657	0.1171
Mercury	23624-09-21 22:48 G	10349813.32	10349813.45	10349813.58	0.1893	0.0510
Mercury	23627-06-19 14:38 G	10350814.02	10350814.11	10350814.19	0.1640	0.1295
Moon	23628-10-19 03:21 G	10351301.55	10351301.64	10351301.72	0.1940	0.1714
Mercury	23634-02-12 01:40 G	10353243.45	10353243.57	10353243.70	0.1885	0.0841
Mercury	23636-11-08 22:33 G	10354244.31	10354244.44	10354244.57	0.1646	0.0508
Venus	23644-04-29 21:21 G	10356973.29	10356973.39	10356973.50	0.1669	0.1291
Mercury	23646-04-01 06:28 G	10357674.64	10357674.77	10357674.91	0.1651	0.0278
Mercury	23655-08-22 14:38 G	10361105.01	10361105.11	10361105.21	0.1656	0.1053
Mercury	23664-03-22 23:16 G	10364240.34	10364240.47	10364240.59	0.1893	0.0665
Mercury	23666-12-18 14:38 G	10365241.05	10365241.11	10365241.18	0.1640	0.1415
Venus	23671-09-15 08:09 G	10366972.80	10366972.84	10366972.88	0.1868	0.1813
Mercury	23673-08-13 02:09 G	10367670.46	10367670.59	10367670.72	0.1885	0.0685
Venus	23676-04-28 17:45 G	10368660.08	10368660.24	10368660.41	0.1659	0.0545
Mercury	23676-05-09 22:48 G	10368671.32	10368671.45	10368671.57	0.1646	0.0627
Mercury	23685-09-30 06:43 G	10372101.65	10372101.78	10372101.91	0.1651	0.0161
Mercury	23695-02-20 14:52 G	10375532.01	10375532.12	10375532.23	0.1657	0.0944
Venus	23703-09-16 03:50 G	10378660.54	10378660.66	10378660.78	0.1882	0.1386
Mercury	23703-09-22 23:16 G	10378667.35	10378667.47	10378667.60	0.1893	0.0804
Mercury	23706-06-19 15:07 G	10379668.08	10379668.13	10379668.17	0.1640	0.1535
Venus	23710-02-26 08:09 G	10381015.78	10381015.84	10381015.89	0.1672	0.1577

Mercury	23713-02-12 02:24 G	10382097.47	10382097.60	10382097.74	0.1886	0.0531
Mercury	23715-11-09 23:02 G	10383098.34	10383098.46	10383098.58	0.1645	0.0747
Moon	23716-04-16 11:16 G	10383256.80	10383256.97	10383257.13	0.1594	0.0685
Earth	23716-04-16 17:31 G	10383257.06	10383257.23	10383257.39	0.1594	0.0725 *
Mercury	23725-04-01 06:57 G	10386528.65	10386528.79	10386528.92	0.1651	0.0052
Mercury	23734-08-22 15:07 G	10389959.01	10389959.13	10389959.24	0.1656	0.0829
Venus	23742-02-25 05:02 G	10392702.54	10392702.71	10392702.88	0.1662	0.0289
Mercury	23743-03-23 23:45 G	10393094.37	10393094.49	10393094.61	0.1893	0.0964
Mercury	23744-01-12 23:16 G	10393389.44	10393389.47	10393389.50	0.1662	0.1609
Mercury	23752-08-13 02:52 G	10396524.48	10396524.62	10396524.75	0.1886	0.0382
Mercury	23755-05-10 23:02 G	10397525.35	10397525.46	10397525.58	0.1645	0.0859
Mercury	23762-01-03 05:31 G	10399954.68	10399954.73	10399954.78	0.1878	0.1739
Mercury	23764-09-30 07:12 G	10400955.66	10400955.80	10400955.93	0.1651	0.0077
Venus	23769-07-13 08:09 G	10402702.68	10402702.84	10402703.00	0.1878	0.0786
Mercury	23774-02-20 15:21 G	10404386.01	10404386.14	10404386.26	0.1656	0.0713
Mercury	23782-09-22 00:14 G	10407521.40	10407521.51	10407521.62	0.1893	0.1124
Mercury	23783-07-13 23:16 G	10407816.42	10407816.47	10407816.53	0.1662	0.1496
Mercury	23792-02-12 03:07 G	10410951.49	10410951.63	10410951.77	0.1886	0.0228
Mercury	23794-11-08 23:16 G	10411952.36	10411952.47	10411952.58	0.1645	0.0977
Moon	23795-04-19 12:14 G	10412113.82	10412114.01	10412114.20	0.1596	0.0366
Earth	23795-04-19 17:16 G	10412114.04	10412114.22	10412114.39	0.1596	0.0604 *
Mercury	23801-07-05 06:00 G	10414381.68	10414381.75	10414381.83	0.1878	0.1573
Mercury	23804-04-01 07:12 G	10415382.67	10415382.80	10415382.94	0.1650	0.0194
Venus	23807-12-24 16:33 G	10416745.01	10416745.19	10416745.36	0.1665	0.0054
Mercury	23813-08-22 15:21 G	10418813.02	10418813.14	10418813.27	0.1656	0.0599
Mercury	23822-03-24 00:14 G	10421948.41	10421948.51	10421948.61	0.1893	0.1255
Mercury	23823-01-12 23:45 G	10422243.41	10422243.49	10422243.56	0.1662	0.1379
Mercury	23831-08-14 03:36 G	10425378.51	10425378.65	10425378.79	0.1886	0.0062
Mercury	23834-05-10 23:31 G	10426379.38	10426379.48	10426379.58	0.1645	0.1102
Venus	23835-05-11 12:00 G	10426744.83	10426745.00	10426745.18	0.1874	0.0168

Mercury	23841-01-03 06:28 G	10428808.68	10428808.77	10428808.86	0.1878	0.1420
Mercury	23843-10-01 07:26 G	10429809.68	10429809.81	10429809.95	0.1650	0.0306
Mercury	23853-02-20 15:36 G	10433240.02	10433240.15	10433240.28	0.1656	0.0486
Mercury	23861-09-22 00:57 G	10436375.45	10436375.54	10436375.62	0.1894	0.1428
Mercury	23862-07-13 23:45 G	10436670.41	10436670.49	10436670.57	0.1661	0.1268
Mercury	23871-02-12 03:50 G	10439805.52	10439805.66	10439805.80	0.1886	0.0080
Venus	23873-10-21 03:36 G	10440787.48	10440787.65	10440787.82	0.1668	0.0235
Mercury	23873-11-08 23:45 G	10440806.40	10440806.49	10440806.58	0.1645	0.1214
Mercury	23880-07-04 06:43 G	10443235.68	10443235.78	10443235.88	0.1879	0.1276
Mercury	23883-04-01 07:40 G	10444236.69	10444236.82	10444236.95	0.1650	0.0425
Mercury	23892-08-21 15:50 G	10447667.03	10447667.16	10447667.29	0.1656	0.0366
Venus	23901-03-08 16:48 G	10450787.03	10450787.20	10450787.38	0.1870	0.0408
Mercury	23901-03-24 01:12 G	10450802.47	10450802.55	10450802.62	0.1894	0.1576
Mercury	23902-01-13 00:00 G	10451097.40	10451097.50	10451097.59	0.1661	0.1156
Venus	23905-10-21 00:28 G	10452474.49	10452474.52	10452474.56	0.1658	0.1611
Mercury	23910-08-14 04:19 G	10454232.54	10454232.68	10454232.81	0.1886	0.0244
Earth	23912-10-21 04:04 G	10455031.48	10455031.67	10455031.86	0.1945	0.0702
Moon	23912-10-21 14:38 G	10455031.93	10455032.11	10455032.29	0.1944	0.0968
Mercury	23913-05-11 00:00 G	10455233.42	10455233.50	10455233.57	0.1645	0.1334
Mercury	23920-01-04 07:12 G	10457662.69	10457662.80	10457662.91	0.1879	0.1109
Earth	23921-04-18 01:55 G	10458132.47	10458132.58	10458132.68	0.1591	0.1314
Moon	23921-04-18 07:55 G	10458132.72	10458132.83	10458132.93	0.1591	0.1333
Mercury	23922-10-01 07:55 G	10458663.70	10458663.83	10458663.96	0.1650	0.0538
Mercury	23932-02-21 15:50 G	10462094.03	10462094.16	10462094.30	0.1656	0.0257
Venus	23939-08-19 14:38 G	10464829.95	10464830.11	10464830.28	0.1671	0.0500
Mercury	23940-09-22 01:26 G	10465229.50	10465229.56	10465229.61	0.1894	0.1718
Mercury	23941-07-14 00:14 G	10465524.41	10465524.51	10465524.61	0.1661	0.1035
Mercury	23950-02-12 04:33 G	10468659.56	10468659.69	10468659.83	0.1887	0.0396
Mercury	23952-11-09 00:14 G	10469660.45	10469660.51	10469660.57	0.1644	0.1457
Mercury	23959-07-05 07:26 G	10472089.69	10472089.81	10472089.93	0.1879	0.0960

Mercury	23962-04-01 08:09 G	10473090.71	10473090.84	10473090.96	0.1650	0.0657
Venus	23967-01-03 21:21 G	10474829.25	10474829.39	10474829.54	0.1865	0.0993
Venus	23971-08-18 11:31 G	10476516.88	10476516.98	10476517.08	0.1661	0.1354
Mercury	23971-08-22 16:04 G	10476521.04	10476521.17	10476521.31	0.1655	0.0139
Mercury	23980-03-23 01:40 G	10479656.56	10479656.57	10479656.59	0.1894	0.1878
Mercury	23981-01-12 00:14 G	10479951.40	10479951.51	10479951.62	0.1661	0.0929
Mercury	23989-08-13 04:48 G	10483086.57	10483086.70	10483086.83	0.1887	0.0540
Mercury	23992-05-10 00:14 G	10484087.48	10484087.51	10484087.55	0.1645	0.1572
Mercury	23999-01-03 07:40 G	10486516.70	10486516.82	10486516.95	0.1879	0.0810
Earth	24000-04-20 01:40 G	10486989.39	10486989.57	10486989.76	0.1592	0.0034
Moon	24000-04-20 05:16 G	10486989.54	10486989.72	10486989.89	0.1592	0.0173 *

25TH MILLENNIUM CE

This is a list of transits visible from Mars in the 25th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	24001-09-30 08:24 G		10487517.73	10487517.85	10487517.97	0.1650	0.0780	
Venus	24005-06-16 01:40 G		10488872.42	10488872.57	10488872.73	0.1674	0.0778	
Mercury	24011-02-20 16:19 G		10490948.05	10490948.18	10490948.31	0.1655	0.0019	
Mercury	24020-07-13 00:28 G		10494378.40	10494378.52	10494378.64	0.1661	0.0812	
Mercury	24029-02-11 05:16 G		10497513.59	10497513.72	10497513.84	0.1887	0.0697	
Mercury	24029-12-03 08:38 G		10497808.83	10497808.86	10497808.90	0.1667	0.1600	
Venus	24032-10-31 02:09 G		10498871.50	10498871.59	10498871.68	0.1861	0.1562	
Venus	24037-06-14 23:02 G		10500559.33	10500559.46	10500559.59	0.1663	0.1105	

Mercury	24038-07-04 08:09 G	10500943.71	10500943.84	10500943.97	0.1879	0.0648
Mercury	24041-03-31 08:24 G	10501944.74	10501944.85	10501944.96	0.1650	0.0891
Mercury	24050-08-21 16:33 G	10505375.05	10505375.19	10505375.32	0.1655	0.0101
Mercury	24060-01-12 00:43 G	10508805.41	10508805.53	10508805.65	0.1661	0.0693
Venus	24064-10-30 20:52 G	10510559.29	10510559.37	10510559.46	0.1876	0.1609
Mercury	24068-08-12 05:45 G	10511940.61	10511940.74	10511940.86	0.1887	0.0862
Mercury	24069-06-03 08:52 G	10512235.81	10512235.87	10512235.93	0.1667	0.1484
Venus	24071-04-13 12:28 G	10512914.89	10512915.02	10512915.16	0.1677	0.1056
Mercury	24078-01-02 08:38 G	10515370.72	10515370.86	10515370.99	0.1879	0.0498
Moon	24079-04-22 22:04 G	10515846.30	10515846.42	10515846.55	0.1594	0.1123
Earth	24079-04-23 01:40 G	10515846.47	10515846.57	10515846.67	0.1594	0.1332 *
Mercury	24080-09-29 08:38 G	10516371.75	10516371.86	10516371.97	0.1649	0.1010
Mercury	24087-05-25 11:16 G	10518800.96	10518800.97	10518800.98	0.1872	0.1857
Mercury	24090-02-19 16:33 G	10519802.06	10519802.19	10519802.33	0.1655	0.0217
Mercury	24099-07-13 00:43 G	10523232.41	10523232.53	10523232.66	0.1661	0.0584
Venus	24103-04-13 09:36 G	10524601.76	10524601.90	10524602.06	0.1667	0.0835
Mercury	24108-02-12 05:45 G	10526367.63	10526367.74	10526367.86	0.1887	0.0995
Mercury	24108-12-03 09:07 G	10526662.80	10526662.88	10526662.95	0.1667	0.1372
Mercury	24117-07-04 08:52 G	10529797.73	10529797.87	10529798.00	0.1880	0.0351
Mercury	24120-03-31 08:52 G	10530798.77	10530798.87	10530798.97	0.1649	0.1132
Mercury	24126-11-24 11:45 G	10533227.93	10533227.99	10533228.05	0.1872	0.1690
Mercury	24129-08-21 16:48 G	10534229.07	10534229.20	10534229.34	0.1655	0.0336
Venus	24130-08-29 01:12 G	10534601.40	10534601.55	10534601.70	0.1871	0.0997
Venus	24137-02-08 23:02 G	10536957.36	10536957.46	10536957.57	0.1680	0.1350
Mercury	24139-01-12 00:57 G	10537659.41	10537659.54	10537659.67	0.1661	0.0467
Mercury	24147-08-13 06:14 G	10540794.65	10540794.76	10540794.87	0.1888	0.1156
Mercury	24148-06-03 09:07 G	10541089.80	10541089.88	10541089.97	0.1666	0.1259
Mercury	24157-01-02 09:21 G	10544224.75	10544224.89	10544225.03	0.1880	0.0187
Mercury	24159-09-30 09:07 G	10545225.79	10545225.88	10545225.96	0.1649	0.1249
Mercury	24166-05-25 11:45 G	10547654.92	10547654.99	10547655.07	0.1872	0.1561

Venus	24169-02-07 20:52 G	10548644.21	10548644.37	10548644.53	0.1670	0.0568
Mercury	24169-02-19 17:02 G	10548656.08	10548656.21	10548656.34	0.1655	0.0448
Mercury	24178-07-13 01:12 G	10552086.42	10552086.55	10552086.68	0.1660	0.0346
Mercury	24187-02-11 06:43 G	10555221.68	10555221.78	10555221.87	0.1888	0.1317
Mercury	24187-12-03 09:21 G	10555516.79	10555516.89	10555516.98	0.1666	0.1147
Venus	24196-06-25 05:31 G	10558643.56	10558643.73	10558643.91	0.1867	0.0407
Mercury	24196-07-03 09:36 G	10558651.76	10558651.90	10558652.04	0.1880	0.0053
Moon	24196-10-20 12:14 G	10558760.81	10558761.01	10558761.20	0.1949	0.0742
Earth	24196-10-20 22:19 G	10558761.24	10558761.43	10558761.62	0.1949	0.0773
Mercury	24199-03-31 09:07 G	10559652.81	10559652.88	10559652.96	0.1649	0.1367
Venus	24202-12-08 10:04 G	10560999.88	10560999.92	10560999.96	0.1684	0.1634
Moon	24205-04-21 07:12 G	10561864.63	10561864.80	10561864.98	0.1589	0.0743
Earth	24205-04-21 10:48 G	10561864.77	10561864.95	10561865.12	0.1589	0.0589 *
Mercury	24205-11-24 12:28 G	10562081.93	10562082.02	10562082.11	0.1872	0.1386
Mercury	24208-08-21 17:16 G	10563083.09	10563083.22	10563083.34	0.1655	0.0566
Mercury	24218-01-12 01:12 G	10566513.42	10566513.55	10566513.69	0.1660	0.0241
Mercury	24226-08-13 06:43 G	10569648.70	10569648.78	10569648.87	0.1888	0.1456
Mercury	24227-06-04 09:36 G	10569943.79	10569943.90	10569944.00	0.1666	0.1027
Venus	24234-12-07 07:55 G	10572686.65	10572686.83	10572687.00	0.1673	0.0299
Mercury	24236-01-03 09:50 G	10573078.77	10573078.91	10573079.05	0.1881	0.0122
Mercury	24238-09-30 09:21 G	10574079.84	10574079.89	10574079.95	0.1649	0.1492
Mercury	24245-05-25 12:43 G	10576508.93	10576509.03	10576509.14	0.1873	0.1234
Mercury	24248-02-20 17:16 G	10577510.10	10577510.22	10577510.35	0.1654	0.0685
Mercury	24257-07-13 01:26 G	10580940.43	10580940.56	10580940.70	0.1660	0.0120
Venus	24262-04-23 09:50 G	10582685.74	10582685.91	10582686.09	0.1862	0.0195
Mercury	24266-02-11 07:12 G	10584075.73	10584075.80	10584075.87	0.1888	0.1612
Mercury	24266-12-03 09:36 G	10584370.79	10584370.90	10584371.01	0.1666	0.0918
Mercury	24275-07-04 10:19 G	10587505.79	10587505.93	10587506.06	0.1880	0.0279
Mercury	24278-03-31 09:36 G	10588506.87	10588506.90	10588506.93	0.1649	0.1603
Earth	24284-04-23 09:50 G	10590721.74	10590721.91	10590722.08	0.1590	0.0723

Moon	24284-04-23 13:12 G	10590721.89	10590722.05	10590722.21	0.1590	0.0926 *
Mercury	24284-11-23 12:57 G	10590935.93	10590936.04	10590936.15	0.1873	0.1092
Mercury	24287-08-21 17:31 G	10591937.12	10591937.23	10591937.35	0.1654	0.0804
Mercury	24297-01-11 01:40 G	10595367.44	10595367.57	10595367.71	0.1660	0.0017
Venus	24300-10-04 18:28 G	10596729.10	10596729.27	10596729.44	0.1676	0.0017
Mercury	24305-08-13 07:26 G	10598502.77	10598502.81	10598502.86	0.1888	0.1777
Mercury	24306-06-04 09:50 G	10598797.79	10598797.91	10598798.02	0.1666	0.0803
Mercury	24315-01-03 10:33 G	10601932.80	10601932.94	10601933.07	0.1881	0.0424
Mercury	24315-10-25 18:00 G	10602228.22	10602228.25	10602228.29	0.1672	0.1601
Mercury	24324-05-25 13:26 G	10605362.94	10605363.06	10605363.18	0.1873	0.0927
Mercury	24327-02-20 17:45 G	10606364.13	10606364.24	10606364.35	0.1654	0.0918
Venus	24328-02-19 15:07 G	10606727.97	10606728.13	10606728.29	0.1858	0.0746
Mercury	24336-07-13 01:40 G	10609794.44	10609794.57	10609794.71	0.1660	0.0128
Mercury	24345-12-03 10:04 G	10613224.79	10613224.92	10613225.04	0.1666	0.0687
Mercury	24354-07-04 10:48 G	10616359.82	10616359.95	10616360.08	0.1881	0.0576
Mercury	24355-04-25 18:14 G	10616655.20	10616655.26	10616655.32	0.1672	0.1484
Mercury	24363-11-24 13:55 G	10619789.95	10619790.08	10619790.20	0.1873	0.0764
Venus	24366-08-02 05:31 G	10620771.56	10620771.73	10620771.90	0.1679	0.0263
Mercury	24366-08-21 18:00 G	10620791.14	10620791.25	10620791.35	0.1654	0.1039
Mercury	24376-01-12 01:55 G	10624221.45	10624221.58	10624221.71	0.1660	0.0230
Mercury	24385-06-03 10:04 G	10627651.80	10627651.92	10627652.05	0.1665	0.0572
Venus	24393-12-16 19:55 G	10630770.21	10630770.33	10630770.45	0.1854	0.1318
Mercury	24394-01-02 11:16 G	10630786.84	10630786.97	10630787.09	0.1881	0.0737
Mercury	24394-10-24 18:14 G	10631082.19	10631082.26	10631082.34	0.1672	0.1375
Venus	24398-08-01 03:07 G	10632458.60	10632458.63	10632458.65	0.1668	0.1643
Mercury	24403-05-25 13:55 G	10634216.95	10634217.08	10634217.21	0.1873	0.0634
Mercury	24406-02-19 18:00 G	10635218.16	10635218.25	10635218.35	0.1654	0.1158
Earth	24410-04-21 19:26 G	10636740.19	10636740.31	10636740.43	0.1587	0.1194
Moon	24410-04-21 22:33 G	10636740.31	10636740.44	10636740.57	0.1587	0.1064 *
Mercury	24415-07-13 02:09 G	10638648.46	10638648.59	10638648.72	0.1659	0.0354

Mercury	24424-12-02 10:19 G	10642078.80	10642078.93	10642079.05	0.1665	0.0461
Venus	24425-12-16 13:55 G	10642458.04	10642458.08	10642458.12	0.1869	0.1818
Venus	24432-05-29 16:04 G	10644814.00	10644814.17	10644814.33	0.1682	0.0554
Mercury	24433-07-03 11:31 G	10645213.86	10645213.98	10645214.10	0.1881	0.0880
Mercury	24434-04-24 18:28 G	10645509.18	10645509.27	10645509.36	0.1671	0.1260
Mercury	24442-11-23 14:24 G	10648643.97	10648644.10	10648644.24	0.1874	0.0461
Mercury	24445-08-20 18:14 G	10649645.18	10649645.26	10649645.35	0.1654	0.1275
Mercury	24452-04-14 17:02 G	10652074.19	10652074.21	10652074.23	0.1865	0.1835
Mercury	24455-01-11 02:09 G	10653075.47	10653075.59	10653075.72	0.1660	0.0466
Venus	24464-05-28 14:09 G	10656501.00	10656501.09	10656501.19	0.1672	0.1383
Mercury	24464-06-02 10:33 G	10656505.81	10656505.94	10656506.07	0.1665	0.0337
Mercury	24473-01-01 11:45 G	10659640.88	10659640.99	10659641.11	0.1882	0.1040
Mercury	24473-10-23 18:43 G	10659936.18	10659936.28	10659936.37	0.1671	0.1145
Mercury	24482-05-24 14:52 G	10663070.98	10663071.12	10663071.25	0.1874	0.0312
Mercury	24485-02-18 18:28 G	10664072.20	10664072.27	10664072.34	0.1654	0.1394
Moon	24489-04-23 14:38 G	10665596.94	10665597.11	10665597.29	0.1588	0.0063
Earth	24489-04-23 18:43 G	10665597.09	10665597.28	10665597.47	0.1588	0.0126 *
Venus	24491-10-13 18:14 G	10666500.13	10666500.26	10666500.39	0.1864	0.1221
Mercury	24491-10-14 17:31 G	10666501.17	10666501.23	10666501.29	0.1866	0.1673
Mercury	24494-07-12 02:24 G	10667502.48	10667502.60	10667502.73	0.1659	0.0586
Venus	24498-03-27 02:38 G	10668856.46	10668856.61	10668856.76	0.1686	0.0846
Mercury	24503-12-03 10:33 G	10670932.81	10670932.94	10670933.07	0.1665	0.0228
Mercury	24512-07-03 12:00 G	10674067.90	10674068.00	10674068.11	0.1881	0.1190
Mercury	24513-04-24 18:43 G	10674363.18	10674363.28	10674363.38	0.1671	0.1033
Mercury	24521-11-23 14:52 G	10677497.99	10677498.12	10677498.26	0.1874	0.0175
Mercury	24524-08-20 18:43 G	10678499.23	10678499.28	10678499.33	0.1654	0.1518
Venus	24530-03-27 00:28 G	10680543.39	10680543.52	10680543.65	0.1675	0.1097
Mercury	24531-04-15 18:00 G	10680928.17	10680928.25	10680928.33	0.1866	0.1514
Mercury	24534-01-11 02:38 G	10681929.49	10681929.61	10681929.73	0.1659	0.0705
Mercury	24543-06-03 10:48 G	10685359.81	10685359.95	10685360.08	0.1665	0.0118

Mercury	24552-01-02 12:28 G	10688494.92	10688495.02	10688495.11	0.1882	0.1343
Mercury	24552-10-23 18:57 G	10688790.18	10688790.29	10688790.40	0.1671	0.0917
Venus	24557-08-10 22:33 G	10690542.28	10690542.44	10690542.61	0.1860	0.0621
Moon	24559-10-27 04:33 G	10691349.60	10691349.69	10691349.78	0.1950	0.1711
Mercury	24561-05-24 15:21 G	10691925.00	10691925.14	10691925.28	0.1874	0.0032
Venus	24564-01-23 12:43 G	10692898.91	10692899.03	10692899.16	0.1689	0.1155
Mercury	24564-02-19 18:43 G	10692926.27	10692926.28	10692926.30	0.1653	0.1633
Moon	24568-04-26 11:45 G	10694453.95	10694453.99	10694454.02	0.1589	0.1559
Earth	24568-04-26 17:45 G	10694454.16	10694454.24	10694454.32	0.1589	0.1435
Mercury	24570-10-14 18:14 G	10695355.16	10695355.26	10695355.35	0.1866	0.1367
Mercury	24573-07-12 02:38 G	10696356.50	10696356.61	10696356.73	0.1659	0.0821
Mercury	24582-12-02 10:48 G	10699786.82	10699786.95	10699787.09	0.1665	0.0059
Mercury	24591-07-03 12:43 G	10702921.95	10702922.03	10702922.11	0.1882	0.1496
Mercury	24592-04-23 18:57 G	10703217.18	10703217.29	10703217.41	0.1671	0.0802
Venus	24596-01-22 11:16 G	10704585.82	10704585.97	10704586.12	0.1678	0.0820
Mercury	24600-11-23 15:50 G	10706352.02	10706352.16	10706352.30	0.1874	0.0160
Mercury	24601-09-15 03:07 G	10706647.60	10706647.63	10706647.67	0.1677	0.1612
Mercury	24610-04-15 18:28 G	10709782.16	10709782.27	10709782.38	0.1866	0.1213
Mercury	24613-01-11 02:52 G	10710783.51	10710783.62	10710783.73	0.1659	0.0937
Mercury	24622-06-03 11:02 G	10714213.83	10714213.96	10714214.09	0.1665	0.0126
Venus	24623-06-09 03:36 G	10714584.47	10714584.65	10714584.82	0.1855	0.0057
Venus	24629-11-20 23:16 G	10716941.39	10716941.47	10716941.56	0.1693	0.1455
Mercury	24631-01-02 12:57 G	10717348.98	10717349.04	10717349.11	0.1882	0.1653
Mercury	24631-10-24 19:12 G	10717644.18	10717644.30	10717644.42	0.1671	0.0687
Mercury	24640-05-24 15:50 G	10720779.02	10720779.16	10720779.30	0.1874	0.0293
Mercury	24641-03-16 03:21 G	10721074.59	10721074.64	10721074.70	0.1677	0.1493
Mercury	24649-10-14 18:57 G	10724209.18	10724209.29	10724209.41	0.1867	0.1041
Mercury	24652-07-12 03:07 G	10725210.53	10725210.63	10725210.73	0.1659	0.1063
Venus	24661-11-19 21:50 G	10728628.25	10728628.41	10728628.58	0.1681	0.0537
Mercury	24661-12-02 11:02 G	10728640.83	10728640.96	10728641.10	0.1665	0.0248

Mercury	24670-07-03 13:12 G	10731776.01	10731776.05	10731776.09	0.1882	0.1795
Mercury	24671-04-24 19:12 G	10732071.18	10732071.30	10732071.43	0.1671	0.0574
Mercury	24679-11-23 16:33 G	10735206.05	10735206.19	10735206.32	0.1875	0.0471
Mercury	24680-09-14 03:36 G	10735501.57	10735501.65	10735501.72	0.1677	0.1384
Venus	24689-04-05 08:09 G	10738626.67	10738626.84	10738627.01	0.1850	0.0528
Mercury	24689-04-14 19:12 G	10738636.17	10738636.30	10738636.42	0.1866	0.0905
Mercury	24692-01-11 03:07 G	10739637.54	10739637.63	10739637.73	0.1659	0.1177
Earth	24694-04-25 03:36 G	10740472.47	10740472.65	10740472.83	0.1586	0.0483
Moon	24694-04-25 08:38 G	10740472.66	10740472.86	10740473.05	0.1586	0.0313 *
Mercury	24701-06-03 11:31 G	10743067.85	10743067.98	10743068.11	0.1664	0.0371
Mercury	24710-10-24 19:26 G	10746498.19	10746498.31	10746498.44	0.1670	0.0454
Mercury	24719-05-25 16:48 G	10749633.07	10749633.20	10749633.33	0.1875	0.0619
Mercury	24720-03-16 03:36 G	10749928.57	10749928.65	10749928.74	0.1677	0.1269
Venus	24727-09-18 08:09 G	10752670.67	10752670.84	10752671.02	0.1685	0.0244
Mercury	24728-10-14 19:40 G	10753063.19	10753063.32	10753063.44	0.1867	0.0741
Mercury	24731-07-13 03:21 G	10754064.56	10754064.64	10754064.72	0.1658	0.1297
Mercury	24740-12-02 11:31 G	10757494.85	10757494.98	10757495.11	0.1664	0.0477
Mercury	24750-04-24 19:40 G	10760925.19	10760925.32	10760925.45	0.1671	0.0339
Venus	24755-02-01 13:55 G	10762668.94	10762669.08	10762669.22	0.1846	0.1061
Mercury	24758-11-23 17:02 G	10764060.08	10764060.21	10764060.33	0.1875	0.0765
Mercury	24759-09-15 03:50 G	10764355.57	10764355.66	10764355.76	0.1676	0.1147
Mercury	24768-04-14 19:55 G	10767490.20	10767490.33	10767490.46	0.1867	0.0579
Mercury	24771-01-11 03:36 G	10768491.58	10768491.65	10768491.72	0.1658	0.1419
Earth	24773-04-28 02:38 G	10769329.45	10769329.61	10769329.77	0.1586	0.0835
Moon	24773-04-28 08:38 G	10769329.70	10769329.86	10769330.03	0.1586	0.0718 *
Mercury	24780-06-02 11:45 G	10771921.86	10771921.99	10771922.11	0.1664	0.0600
Mercury	24789-10-23 19:40 G	10775352.19	10775352.32	10775352.46	0.1670	0.0226
Venus	24793-07-15 18:57 G	10776713.12	10776713.29	10776713.47	0.1688	0.0065
Mercury	24798-05-24 17:16 G	10778487.10	10778487.22	10778487.34	0.1875	0.0929
Mercury	24799-03-16 03:50 G	10778782.56	10778782.66	10778782.76	0.1676	0.1041

Mercury	24807-10-14 20:09 G	10781917.21	10781917.34	10781917.48	0.1867	0.0434
Mercury	24810-07-12 03:50 G	10782918.61	10782918.66	10782918.70	0.1658	0.1537
Mercury	24817-03-05 22:48 G	10785347.42	10785347.45	10785347.48	0.1859	0.1799
Mercury	24819-12-02 11:45 G	10786348.87	10786348.99	10786349.11	0.1664	0.0724
Venus	24820-11-28 18:57 G	10786711.21	10786711.29	10786711.37	0.1842	0.1612
Mercury	24829-04-23 19:55 G	10789779.20	10789779.33	10789779.46	0.1670	0.0103
Mercury	24837-11-22 17:45 G	10792914.13	10792914.24	10792914.35	0.1875	0.1086
Mercury	24838-09-14 04:04 G	10793209.56	10793209.67	10793209.78	0.1676	0.0922
Earth	24843-10-28 03:50 G	10795079.46	10795079.66	10795079.85	0.1953	0.0654
Moon	24843-10-28 13:26 G	10795079.88	10795080.06	10795080.25	0.1953	0.0702
Mercury	24847-04-14 20:38 G	10796344.22	10796344.36	10796344.50	0.1867	0.0277
Venus	24852-11-28 11:31 G	10798398.87	10798398.98	10798399.09	0.1857	0.1446
Mercury	24856-09-03 23:16 G	10799774.41	10799774.47	10799774.54	0.1859	0.1632
Venus	24859-05-13 05:16 G	10800755.55	10800755.72	10800755.89	0.1691	0.0354
Mercury	24859-06-02 12:00 G	10800775.88	10800776.00	10800776.11	0.1664	0.0836
Mercury	24868-10-22 20:09 G	10804206.20	10804206.34	10804206.47	0.1670	0.0049
Mercury	24877-05-23 18:00 G	10807341.14	10807341.25	10807341.35	0.1876	0.1225
Mercury	24878-03-15 04:19 G	10807636.56	10807636.68	10807636.79	0.1676	0.0801
Mercury	24886-10-13 21:07 G	10810771.24	10810771.38	10810771.52	0.1868	0.0107
Mercury	24887-08-05 12:28 G	10811066.99	10811067.02	10811067.05	0.1682	0.1620
Venus	24891-05-12 04:19 G	10812442.64	10812442.68	10812442.71	0.1680	0.1640
Mercury	24896-03-04 23:31 G	10814201.40	10814201.48	10814201.57	0.1859	0.1484
Mercury	24898-12-01 12:00 G	10815202.90	10815203.00	10815203.11	0.1664	0.0955
Moon	24899-04-25 08:24 G	10815347.75	10815347.85	10815347.97	0.1584	0.1243
Earth	24899-04-25 12:43 G	10815347.89	10815348.03	10815348.17	0.1584	0.1076 *
Mercury	24908-04-23 20:09 G	10818633.21	10818633.34	10818633.47	0.1670	0.0135
Mercury	24916-11-22 18:28 G	10821768.18	10821768.27	10821768.36	0.1876	0.1400
Mercury	24917-09-14 04:19 G	10822063.56	10822063.68	10822063.80	0.1676	0.0690
Venus	24918-09-26 16:33 G	10822441.03	10822441.19	10822441.34	0.1852	0.0875
Venus	24925-03-10 15:36 G	10824797.99	10824798.15	10824798.31	0.1695	0.0659

Mercury	24926-04-14 21:07 G	10825198.24	10825198.38	10825198.52	0.1868	0.0046
Mercury	24927-02-04 12:43 G	10825493.97	10825494.03	10825494.09	0.1682	0.1503
Mercury	24935-09-05 00:00 G	10828628.40	10828628.50	10828628.60	0.1860	0.1323
Mercury	24938-06-02 12:28 G	10829629.92	10829630.02	10829630.12	0.1664	0.1084
Mercury	24947-10-23 20:24 G	10833060.22	10833060.35	10833060.48	0.1669	0.0253
Mercury	24956-05-23 18:43 G	10836195.20	10836195.28	10836195.35	0.1876	0.1547
Venus	24957-03-09 14:24 G	10836485.00	10836485.10	10836485.20	0.1684	0.1344
Mercury	24957-03-15 04:33 G	10836490.56	10836490.69	10836490.81	0.1676	0.0574
Mercury	24965-10-13 21:36 G	10839625.26	10839625.40	10839625.54	0.1868	0.0202
Mercury	24966-08-05 12:43 G	10839920.96	10839921.03	10839921.10	0.1682	0.1390
Mercury	24975-03-06 00:14 G	10843055.41	10843055.51	10843055.62	0.1860	0.1165
Mercury	24977-12-01 12:28 G	10844056.93	10844057.02	10844057.11	0.1663	0.1196
Moon	24978-04-28 06:43 G	10844204.59	10844204.78	10844204.97	0.1585	0.0336
Earth	24978-04-28 12:00 G	10844204.82	10844205.00	10844205.19	0.1585	0.0240 *
Venus	24984-07-23 21:21 G	10846483.21	10846483.39	10846483.56	0.1848	0.0299
Mercury	24987-04-23 20:38 G	10847487.23	10847487.36	10847487.49	0.1670	0.0376
Venus	24991-01-06 01:40 G	10848840.43	10848840.57	10848840.71	0.1699	0.0973
Mercury	24995-11-22 18:57 G	10850622.23	10850622.29	10850622.35	0.1876	0.1697
Mercury	24996-09-13 04:48 G	10850917.57	10850917.70	10850917.82	0.1676	0.0449

26TH MILLENNIUM CE

This is a list of transits visible from Mars in the 26th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mercury	25005-04-14 22:04 G	10854052.28	10854052.42	10854052.56	0.1868	0.0363
Mercury	25006-02-04 12:57 G	10854347.95	10854348.04	10854348.12	0.1682	0.1276
Mercury	25014-09-05 00:43 G	10857482.41	10857482.53	10857482.65	0.1860	0.1004
Mercury	25017-06-02 12:43 G	10858483.95	10858484.03	10858484.11	0.1663	0.1320
Venus	25023-01-06 01:12 G	10860527.41	10860527.55	10860527.68	0.1687	0.1064
Mercury	25026-10-23 20:38 G	10861914.23	10861914.36	10861914.49	0.1669	0.0492
Mercury	25035-05-24 19:26 G	10865049.29	10865049.31	10865049.32	0.1876	0.1861
Mercury	25036-03-15 04:48 G	10865344.57	10865344.70	10865344.83	0.1676	0.0339
Mercury	25044-10-13 22:19 G	10868479.29	10868479.43	10868479.56	0.1868	0.0509
Mercury	25045-08-05 13:12 G	10868774.95	10868775.05	10868775.14	0.1682	0.1152
Venus	25050-05-22 02:38 G	10870525.44	10870525.61	10870525.78	0.1843	0.0253
Mercury	25054-03-06 00:57 G	10871909.42	10871909.54	10871909.67	0.1861	0.0851
Venus	25056-11-03 12:00 G	10872882.89	10872883.00	10872883.11	0.1702	0.1284
Mercury	25056-12-01 12:57 G	10872910.97	10872911.04	10872911.10	0.1663	0.1446
Moon	25057-05-01 12:14 G	10873061.92	10873062.01	10873062.11	0.1585	0.1382
Earth	25057-05-01 11:16 G	10873061.95	10873061.97	10873062.00	0.1585	0.1564 *
Mercury	25066-04-23 20:52 G	10876341.24	10876341.37	10876341.49	0.1669	0.0611
Mercury	25075-09-14 05:02 G	10879771.58	10879771.71	10879771.84	0.1675	0.0218
Mercury	25084-04-13 22:33 G	10882906.31	10882906.44	10882906.57	0.1869	0.0672
Mercury	25085-02-03 13:12 G	10883201.95	10883202.05	10883202.15	0.1682	0.1041
Venus	25088-11-02 11:31 G	10884569.82	10884569.98	10884570.13	0.1690	0.0766
Mercury	25093-09-04 01:26 G	10886336.43	10886336.56	10886336.69	0.1860	0.0685
Mercury	25096-06-01 12:57 G	10887338.00	10887338.04	10887338.08	0.1663	0.1562
Moon	25104-04-27 04:33 G	10890223.66	10890223.69	10890223.72	0.1583	0.1560
Mercury	25105-10-23 21:07 G	10890768.26	10890768.38	10890768.50	0.1669	0.0736
Mercury	25115-03-16 05:16 G	10894198.58	10894198.72	10894198.85	0.1675	0.0104
Venus	25116-03-19 07:55 G	10894567.67	10894567.83	10894567.98	0.1839	0.0800
Venus	25122-09-01 21:36 G	10896925.35	10896925.40	10896925.45	0.1706	0.1619
Mercury	25123-10-14 23:02 G	10897333.34	10897333.46	10897333.59	0.1869	0.0844
Mercury	25124-08-05 13:26 G	10897628.95	10897629.06	10897629.17	0.1681	0.0923

Moon	25127-10-29 11:31 G	10898808.79	10898808.98	10898809.16	0.1956	0.1109
Earth	25127-10-29 19:12 G	10898809.12	10898809.30	10898809.47	0.1956	0.1050 *
Mercury	25133-03-06 01:40 G	10900763.44	10900763.57	10900763.71	0.1861	0.0536
Mercury	25145-04-23 21:07 G	10905195.27	10905195.38	10905195.50	0.1669	0.0854
Venus	25154-08-31 21:36 G	10908612.24	10908612.40	10908612.57	0.1694	0.0465
Mercury	25154-09-14 05:16 G	10908625.59	10908625.72	10908625.85	0.1675	0.0023
Mercury	25163-04-14 23:16 G	10911760.35	10911760.47	10911760.59	0.1869	0.0976
Mercury	25164-02-04 13:26 G	10912055.95	10912056.06	10912056.18	0.1681	0.0804
Mercury	25172-09-04 02:09 G	10915190.46	10915190.59	10915190.73	0.1861	0.0368
Mercury	25173-06-26 21:50 G	10915486.38	10915486.41	10915486.44	0.1688	0.1625
Venus	25182-01-14 14:09 G	10918609.97	10918610.09	10918610.21	0.1834	0.1307
Mercury	25182-01-25 04:48 G	10918620.66	10918620.70	10918620.75	0.1853	0.1734
Earth	25183-04-29 21:36 G	10919080.22	10919080.40	10919080.59	0.1583	0.0349
Moon	25183-04-30 02:52 G	10919080.45	10919080.62	10919080.80	0.1583	0.0428 *
Mercury	25184-10-22 21:21 G	10919622.28	10919622.39	10919622.50	0.1669	0.0976
Mercury	25194-03-15 05:31 G	10923052.59	10923052.73	10923052.86	0.1675	0.0151
Mercury	25202-10-13 23:45 G	10926187.38	10926187.49	10926187.60	0.1869	0.1150
Mercury	25203-08-05 13:40 G	10926482.95	10926483.07	10926483.19	0.1681	0.0686
Mercury	25212-03-05 02:38 G	10929617.47	10929617.61	10929617.75	0.1861	0.0216
Mercury	25212-12-25 21:50 G	10929913.36	10929913.41	10929913.47	0.1688	0.1513
Venus	25214-01-14 06:00 G	10930297.69	10930297.75	10930297.81	0.1850	0.1724
Venus	25220-06-28 08:24 G	10932654.67	10932654.85	10932655.02	0.1697	0.0168
Mercury	25221-07-26 05:02 G	10933047.64	10933047.71	10933047.78	0.1853	0.1588
Mercury	25224-04-22 21:36 G	10934049.30	10934049.40	10934049.50	0.1669	0.1100
Mercury	25233-09-13 05:45 G	10937479.61	10937479.74	10937479.87	0.1675	0.0271
Mercury	25242-04-14 00:14 G	10940614.41	10940614.51	10940614.60	0.1869	0.1314
Mercury	25243-02-03 13:40 G	10940909.95	10940910.07	10940910.20	0.1681	0.0571
Mercury	25251-09-04 02:52 G	10944044.48	10944044.62	10944044.76	0.1861	0.0066
Mercury	25252-06-25 22:04 G	10944340.35	10944340.42	10944340.49	0.1687	0.1393
Mercury	25261-01-24 05:31 G	10947474.64	10947474.73	10947474.83	0.1853	0.1415

Earth	25262-05-01 21:07 G	10947937.23	10947937.38	10947937.52	0.1584	0.0975
Moon	25262-05-01 20:24 G	10947937.24	10947937.35	10947937.48	0.1584	0.1155 *
Mercury	25263-10-22 21:36 G	10948476.31	10948476.40	10948476.49	0.1668	0.1221
Mercury	25273-03-14 05:45 G	10951906.61	10951906.74	10951906.87	0.1675	0.0383
Venus	25279-11-11 10:48 G	10954339.82	10954339.95	10954340.09	0.1845	0.1152
Mercury	25281-10-13 00:14 G	10955041.43	10955041.51	10955041.60	0.1870	0.1459
Mercury	25282-08-04 14:09 G	10955336.96	10955337.09	10955337.21	0.1681	0.0444
Venus	25286-04-25 18:14 G	10956697.08	10956697.26	10956697.43	0.1701	0.0155
Mercury	25291-03-05 03:21 G	10958471.50	10958471.64	10958471.78	0.1862	0.0114
Mercury	25291-12-25 22:19 G	10958767.34	10958767.43	10958767.51	0.1687	0.1277
Mercury	25300-07-26 06:00 G	10961901.65	10961901.75	10961901.86	0.1853	0.1252
Mercury	25303-04-23 21:50 G	10962903.33	10962903.41	10962903.49	0.1668	0.1343
Mercury	25312-09-13 06:00 G	10966333.62	10966333.75	10966333.87	0.1674	0.0509
Mercury	25321-04-14 00:43 G	10969468.47	10969468.53	10969468.60	0.1870	0.1624
Mercury	25322-02-03 14:09 G	10969763.96	10969764.09	10969764.22	0.1681	0.0330
Mercury	25330-09-04 03:36 G	10972898.52	10972898.65	10972898.79	0.1862	0.0278
Mercury	25331-06-26 22:19 G	10973194.34	10973194.43	10973194.53	0.1687	0.1158
Mercury	25340-01-25 06:14 G	10976328.65	10976328.76	10976328.88	0.1854	0.1103
Mercury	25342-10-22 22:04 G	10977330.36	10977330.42	10977330.48	0.1668	0.1471
Venus	25345-09-08 16:33 G	10978382.03	10978382.19	10978382.36	0.1840	0.0610
Venus	25352-02-22 04:33 G	10980739.52	10980739.69	10980739.86	0.1704	0.0463
Mercury	25352-03-14 06:14 G	10980760.64	10980760.76	10980760.88	0.1674	0.0633
Mercury	25360-10-13 01:12 G	10983895.52	10983895.55	10983895.59	0.1870	0.1793
Mercury	25361-08-04 14:09 G	10984190.96	10984191.09	10984191.23	0.1681	0.0215
Mercury	25370-03-05 04:04 G	10987325.53	10987325.67	10987325.81	0.1862	0.0429
Mercury	25370-12-25 22:33 G	10987621.34	10987621.44	10987621.54	0.1687	0.1040
Mercury	25379-07-26 06:43 G	10990755.66	10990755.78	10990755.91	0.1854	0.0929
Mercury	25382-04-22 22:19 G	10991757.39	10991757.43	10991757.46	0.1668	0.1592
Venus	25384-02-21 04:19 G	10992426.63	10992426.68	10992426.73	0.1693	0.1604
Moon	25388-04-29 03:21 G	10993955.47	10993955.64	10993955.80	0.1582	0.0841

Earth	25388-04-29 08:38 G	10993955.71	10993955.86	10993956.01	0.1582	0.0921	*
Mercury	25391-09-13 06:14 G	10995187.64	10995187.76	10995187.88	0.1674	0.0752	
Mercury	25401-02-03 14:24 G	10998617.97	10998618.10	10998618.24	0.1680	0.0097	
Mercury	25409-09-04 04:33 G	11001752.56	11001752.69	11001752.82	0.1862	0.0601	
Mercury	25410-06-26 22:48 G	11002048.34	11002048.45	11002048.56	0.1687	0.0918	
Venus	25411-07-07 21:50 G	11002424.24	11002424.41	11002424.58	0.1836	0.0053	
Venus	25417-12-20 14:24 G	11004781.95	11004782.10	11004782.26	0.1708	0.0790	
Mercury	25419-01-25 07:12 G	11005182.67	11005182.80	11005182.93	0.1854	0.0767	
Mercury	25431-03-15 06:28 G	11009614.66	11009614.77	11009614.88	0.1674	0.0874	
Mercury	25440-08-04 14:38 G	11013044.98	11013045.11	11013045.24	0.1680	0.0040	
Mercury	25449-03-05 04:48 G	11016179.57	11016179.70	11016179.83	0.1862	0.0751	
Venus	25449-12-19 14:52 G	11016469.01	11016469.12	11016469.23	0.1696	0.1312	
Mercury	25449-12-25 22:48 G	11016475.34	11016475.45	11016475.57	0.1687	0.0800	
Mercury	25458-07-26 07:26 G	11019609.68	11019609.81	11019609.94	0.1854	0.0618	
Mercury	25459-05-18 07:12 G	11019905.77	11019905.80	11019905.83	0.1693	0.1630	
Earth	25467-05-03 07:26 G	11022812.63	11022812.81	11022813.00	0.1583	0.0403	
Moon	25467-05-03 09:36 G	11022812.71	11022812.90	11022813.10	0.1583	0.0287	*
Mercury	25470-09-13 06:43 G	11024041.67	11024041.78	11024041.89	0.1674	0.1003	
Venus	25477-05-04 03:50 G	11026466.49	11026466.66	11026466.83	0.1831	0.0466	
Mercury	25480-02-03 14:38 G	11027471.98	11027472.11	11027472.25	0.1680	0.0165	
Venus	25483-10-18 00:28 G	11028824.39	11028824.52	11028824.65	0.1712	0.1112	
Mercury	25488-09-03 05:16 G	11030606.59	11030606.72	11030606.84	0.1863	0.0916	
Mercury	25489-06-25 23:02 G	11030902.34	11030902.46	11030902.58	0.1686	0.0680	
Moon	25490-11-03 02:52 G	11031397.51	11031397.62	11031397.74	0.1956	0.1591	
Mercury	25498-01-24 07:55 G	11034036.70	11034036.83	11034036.97	0.1854	0.0444	
Mercury	25498-11-16 07:12 G	11034332.75	11034332.80	11034332.86	0.1693	0.1521	
Mercury	25507-06-17 10:19 G	11037466.92	11037466.93	11037466.94	0.1846	0.1833	
Mercury	25510-03-15 06:43 G	11038468.69	11038468.78	11038468.88	0.1674	0.1122	
Venus	25515-10-18 00:57 G	11040511.40	11040511.54	11040511.68	0.1700	0.1004	
Mercury	25519-08-05 15:07 G	11041898.99	11041899.13	11041899.26	0.1680	0.0292	

Mercury	25528-03-05 05:31 G	11045033.62	11045033.73	11045033.85	0.1863	0.1080
Mercury	25528-12-25 23:02 G	11045329.34	11045329.46	11045329.59	0.1686	0.0562
Mercury	25537-07-26 08:24 G	11048463.71	11048463.85	11048463.99	0.1854	0.0281
Mercury	25538-05-18 07:26 G	11048759.74	11048759.81	11048759.88	0.1693	0.1397
Venus	25543-03-02 09:36 G	11050508.76	11050508.90	11050509.05	0.1827	0.0986
Mercury	25546-12-16 10:48 G	11051893.89	11051893.95	11051894.02	0.1846	0.1656
Venus	25549-08-15 10:04 G	11052866.83	11052866.92	11052867.01	0.1716	0.1455
Mercury	25549-09-13 06:57 G	11052895.71	11052895.79	11052895.88	0.1673	0.1248
Mercury	25559-02-03 15:07 G	11056326.00	11056326.13	11056326.26	0.1680	0.0401
Mercury	25567-09-04 06:00 G	11059460.64	11059460.75	11059460.85	0.1863	0.1238
Mercury	25568-06-25 23:16 G	11059756.35	11059756.47	11059756.60	0.1686	0.0436
Mercury	25577-01-24 08:38 G	11062890.72	11062890.86	11062891.00	0.1855	0.0129
Mercury	25577-11-16 07:40 G	11063186.73	11063186.82	11063186.90	0.1693	0.1275
Venus	25581-08-14 11:02 G	11064553.80	11064553.96	11064554.12	0.1703	0.0695
Mercury	25586-06-16 11:16 G	11066320.89	11066320.97	11066321.06	0.1846	0.1491
Mercury	25589-03-14 07:12 G	11067322.73	11067322.80	11067322.87	0.1673	0.1373
Earth	25593-04-30 19:12 G	11068831.24	11068831.30	11068831.36	0.1582	0.1496
Moon	25593-04-30 23:02 G	11068831.42	11068831.46	11068831.51	0.1582	0.1521
Mercury	25598-08-04 15:21 G	11070753.01	11070753.14	11070753.26	0.1680	0.0528
Mercury	25607-03-05 06:14 G	11073887.67	11073887.76	11073887.85	0.1863	0.1396
Mercury	25607-12-25 23:31 G	11074183.35	11074183.48	11074183.61	0.1686	0.0321
Venus	25608-12-27 16:19 G	11074551.08	11074551.18	11074551.28	0.1822	0.1472
Mercury	25616-07-25 09:07 G	11077317.74	11077317.88	11077318.02	0.1855	0.0052
Mercury	25617-05-17 07:40 G	11077613.73	11077613.82	11077613.91	0.1693	0.1161
Mercury	25625-12-15 11:31 G	11080747.89	11080747.98	11080748.08	0.1846	0.1340
Mercury	25628-09-12 07:26 G	11081749.75	11081749.81	11081749.86	0.1673	0.1497
Mercury	25638-02-02 15:21 G	11085180.02	11085180.14	11085180.27	0.1679	0.0657
Venus	25640-12-27 06:43 G	11086238.68	11086238.78	11086238.88	0.1838	0.1485
Mercury	25646-09-03 06:43 G	11088314.71	11088314.78	11088314.86	0.1864	0.1569
Venus	25647-06-11 21:21 G	11088596.22	11088596.39	11088596.56	0.1707	0.0385

Mercury	25647-06-25 23:31 G	11088610.35	11088610.48	11088610.62	0.1686	0.0203
Mercury	25656-01-24 09:36 G	11091744.76	11091744.90	11091745.04	0.1855	0.0208
Mercury	25656-11-15 07:55 G	11092040.73	11092040.83	11092040.93	0.1693	0.1042
Mercury	25665-06-15 12:00 G	11095174.89	11095175.00	11095175.11	0.1847	0.1170
Mercury	25668-03-13 07:26 G	11096176.78	11096176.81	11096176.84	0.1673	0.1621
Moon	25672-05-02 16:04 G	11097687.99	11097688.17	11097688.35	0.1582	0.0060
Earth	25672-05-02 18:14 G	11097688.08	11097688.26	11097688.45	0.1582	0.0179 *
Mercury	25677-08-03 15:36 G	11099607.03	11099607.15	11099607.27	0.1679	0.0772
Mercury	25686-03-04 06:57 G	11102741.74	11102741.79	11102741.84	0.1863	0.1715
Mercury	25686-12-24 23:45 G	11103037.36	11103037.49	11103037.62	0.1686	0.0073
Mercury	25695-07-25 09:50 G	11106171.77	11106171.91	11106172.05	0.1856	0.0359
Mercury	25696-05-16 08:09 G	11106467.73	11106467.84	11106467.95	0.1692	0.0915
Mercury	25704-12-15 12:43 G	11109601.91	11109602.03	11109602.15	0.1847	0.0993
Venus	25706-10-25 12:14 G	11110280.86	11110281.01	11110281.16	0.1833	0.0938
Venus	25713-04-09 06:57 G	11112638.61	11112638.79	11112638.96	0.1710	0.0059
Mercury	25717-02-02 15:36 G	11114034.04	11114034.15	11114034.27	0.1679	0.0896
Mercury	25726-06-26 00:00 G	11117464.37	11117464.50	11117464.63	0.1686	0.0060
Mercury	25735-01-24 10:19 G	11120598.80	11120598.93	11120599.07	0.1856	0.0534
Mercury	25735-11-16 08:09 G	11120894.72	11120894.84	11120894.95	0.1692	0.0802
Mercury	25744-06-15 12:43 G	11124028.91	11124029.03	11124029.16	0.1847	0.0854
Mercury	25745-04-07 16:33 G	11124325.16	11124325.19	11124325.22	0.1699	0.1642
Moon	25751-05-06 11:31 G	11126544.82	11126544.98	11126545.13	0.1582	0.0894
Earth	25751-05-06 17:31 G	11126545.11	11126545.23	11126545.36	0.1582	0.1159 *
Mercury	25756-08-03 16:04 G	11128461.06	11128461.17	11128461.27	0.1679	0.1027
Mercury	25765-12-25 00:00 G	11131891.37	11131891.50	11131891.63	0.1685	0.0174
Venus	25772-08-21 18:14 G	11134323.09	11134323.26	11134323.43	0.1829	0.0413
Mercury	25774-07-25 10:33 G	11135025.81	11135025.94	11135026.07	0.1856	0.0691
Earth	25774-11-04 04:48 G	11135127.50	11135127.70	11135127.90	0.1957	0.0575
Moon	25774-11-04 11:02 G	11135127.77	11135127.96	11135128.15	0.1957	0.0426 *
Mercury	25775-05-17 08:24 G	11135321.73	11135321.85	11135321.97	0.1692	0.0679

Venus	25779-02-04 17:02 G	11136681.04	11136681.21	11136681.38	0.1714	0.0270
Mercury	25783-12-15 13:26 G	11138455.92	11138456.06	11138456.19	0.1848	0.0674
Mercury	25784-10-06 16:33 G	11138752.14	11138752.19	11138752.24	0.1699	0.1528
Mercury	25796-02-02 16:05 G	11142888.07	11142888.17	11142888.26	0.1679	0.1142
Mercury	25805-06-26 00:14 G	11146318.38	11146318.51	11146318.64	0.1685	0.0299
Mercury	25814-01-24 11:02 G	11149452.83	11149452.96	11149453.08	0.1856	0.0849
Mercury	25814-11-16 08:24 G	11149748.73	11149748.85	11149748.98	0.1692	0.0556
Mercury	25823-06-16 13:41 G	11152882.94	11152883.07	11152883.21	0.1848	0.0511
Mercury	25824-04-07 16:33 G	11153179.12	11153179.19	11153179.26	0.1699	0.1411
Mercury	25835-08-04 16:19 G	11157315.09	11157315.18	11157315.26	0.1679	0.1271
Venus	25838-06-19 23:45 G	11158365.32	11158365.49	11158365.67	0.1824	0.0137
Venus	25844-12-03 02:38 G	11160723.45	11160723.61	11160723.77	0.1718	0.0613
Mercury	25844-12-25 00:29 G	11160745.39	11160745.52	11160745.64	0.1685	0.0419
Mercury	25853-07-25 11:17 G	11163879.86	11163879.97	11163880.09	0.1856	0.1017
Mercury	25854-05-17 08:38 G	11164175.73	11164175.86	11164175.98	0.1692	0.0440
Mercury	25862-12-15 13:55 G	11167309.95	11167310.08	11167310.22	0.1848	0.0363
Mercury	25863-10-07 16:48 G	11167606.12	11167606.20	11167606.29	0.1699	0.1284
Mercury	25872-05-06 16:33 G	11170740.15	11170740.19	11170740.24	0.1840	0.1725
Mercury	25875-02-02 16:33 G	11171742.12	11171742.19	11171742.26	0.1679	0.1400
Venus	25876-12-02 03:50 G	11172410.60	11172410.66	11172410.73	0.1706	0.1557
Earth	25877-05-04 05:02 G	11172563.55	11172563.71	11172563.88	0.1582	0.0751
Moon	25877-05-04 07:41 G	11172563.65	11172563.82	11172563.99	0.1582	0.0831 *
Mercury	25884-06-25 00:29 G	11175172.40	11175172.52	11175172.65	0.1685	0.0542
Mercury	25893-01-23 11:45 G	11178306.88	11178306.99	11178307.10	0.1856	0.1176
Mercury	25893-11-15 08:38 G	11178602.73	11178602.86	11178602.99	0.1692	0.0317
Mercury	25902-06-16 14:24 G	11181736.96	11181737.10	11181737.24	0.1848	0.0192
Mercury	25903-04-08 17:02 G	11182033.11	11182033.21	11182033.30	0.1698	0.1171
Venus	25904-04-17 06:14 G	11182407.60	11182407.76	11182407.92	0.1819	0.0624
Venus	25910-10-01 12:14 G	11184765.87	11184766.01	11184766.15	0.1722	0.0953
Mercury	25911-11-06 17:02 G	11185167.14	11185167.21	11185167.29	0.1839	0.1559

Mercury	25914-08-04 16:33 G	11186169.14	11186169.19	11186169.24	0.1678	0.1518
Mercury	25923-12-26 00:43 G	11189599.41	11189599.53	11189599.65	0.1685	0.0666
Mercury	25932-07-25 12:00 G	11192733.91	11192734.00	11192734.10	0.1857	0.1332
Mercury	25933-05-17 08:53 G	11193029.74	11193029.87	11193030.00	0.1691	0.0189
Mercury	25941-12-15 15:07 G	11196163.98	11196164.13	11196164.27	0.1848	0.0062
Venus	25942-09-30 13:41 G	11196452.95	11196453.07	11196453.19	0.1709	0.1231
Mercury	25942-10-07 17:02 G	11196460.11	11196460.21	11196460.31	0.1698	0.1049
Mercury	25951-05-07 17:17 G	11199594.13	11199594.22	11199594.32	0.1840	0.1404
Mercury	25954-02-02 16:48 G	11200596.17	11200596.20	11200596.22	0.1678	0.1644
Earth	25956-05-07 03:36 G	11201420.48	11201420.65	11201420.83	0.1582	0.0570
Moon	25956-05-07 09:36 G	11201420.74	11201420.90	11201421.06	0.1582	0.0789 *
Mercury	25963-06-26 00:57 G	11204026.42	11204026.54	11204026.65	0.1685	0.0791
Venus	25970-02-12 12:29 G	11206449.89	11206450.02	11206450.16	0.1815	0.1127
Mercury	25972-01-24 12:29 G	11207160.94	11207161.02	11207161.10	0.1857	0.1504
Mercury	25972-11-15 08:53 G	11207456.74	11207456.87	11207457.00	0.1691	0.0089
Venus	25976-07-28 21:36 G	11208808.29	11208808.40	11208808.51	0.1726	0.1314
Mercury	25981-06-15 15:07 G	11210590.99	11210591.13	11210591.27	0.1848	0.0125
Mercury	25982-04-07 17:17 G	11210887.11	11210887.22	11210887.33	0.1698	0.0924
Mercury	25990-11-05 18:00 G	11214021.14	11214021.25	11214021.35	0.1840	0.1228

27TH MILLENNIUM CE

This is a list of transits visible from Mars in the 27th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Venus	26002-02-12 02:38 G	11218137.59	11218137.61	11218137.62	0.1830	0.1818
Mercury	26002-12-25 00:57 G	11218453.43	11218453.54	11218453.65	0.1684	0.0911
Venus	26008-07-27 23:31 G	11220495.33	11220495.48	11220495.63	0.1713	0.0905
Mercury	26011-07-25 12:43 G	11221587.97	11221588.03	11221588.09	0.1857	0.1657
Mercury	26012-05-16 09:07 G	11221883.75	11221883.88	11221884.01	0.1691	0.0052
Mercury	26020-12-14 15:36 G	11225018.01	11225018.15	11225018.29	0.1849	0.0310
Mercury	26021-10-06 17:17 G	11225314.11	11225314.22	11225314.34	0.1698	0.0809
Mercury	26030-05-06 18:14 G	11228448.14	11228448.26	11228448.37	0.1840	0.1073
Mercury	26031-02-27 01:41 G	11228744.55	11228744.57	11228744.60	0.1705	0.1663
Venus	26035-12-10 19:26 G	11230492.23	11230492.31	11230492.39	0.1810	0.1598
Venus	26042-05-26 06:43 G	11232850.74	11232850.78	11232850.83	0.1730	0.1672
Mercury	26042-06-25 01:12 G	11232880.45	11232880.55	11232880.65	0.1684	0.1041
Mercury	26051-01-23 13:12 G	11236015.02	11236015.05	11236015.07	0.1857	0.1819
Mercury	26051-11-15 09:21 G	11236310.76	11236310.89	11236311.02	0.1691	0.0179
Moon	26058-11-04 17:17 G	11238857.05	11238857.22	11238857.38	0.1956	0.1357
Earth	26058-11-04 19:26 G	11238857.15	11238857.31	11238857.47	0.1956	0.1211 *
Mercury	26060-06-14 16:05 G	11239445.03	11239445.17	11239445.31	0.1849	0.0469
Mercury	26061-04-06 17:31 G	11239741.11	11239741.23	11239741.35	0.1698	0.0688
Venus	26067-12-10 08:24 G	11242179.73	11242179.85	11242179.97	0.1826	0.1283
Mercury	26069-11-04 18:43 G	11242875.15	11242875.28	11242875.40	0.1840	0.0908
Mercury	26070-08-28 01:55 G	11243171.52	11243171.58	11243171.63	0.1705	0.1542
Venus	26074-05-25 09:21 G	11244537.72	11244537.89	11244538.05	0.1716	0.0579
Mercury	26081-12-24 01:12 G	11247307.46	11247307.55	11247307.65	0.1684	0.1159
Moon	26082-05-04 11:45 G	11247438.90	11247438.99	11247439.08	0.1583	0.1334
Earth	26082-05-04 15:21 G	11247439.05	11247439.14	11247439.24	0.1583	0.1355 *
Mercury	26091-05-16 09:21 G	11250737.76	11250737.89	11250738.02	0.1691	0.0297
Mercury	26099-12-14 16:19 G	11253872.05	11253872.18	11253872.31	0.1849	0.0618
Mercury	26100-10-06 17:45 G	11254168.11	11254168.24	11254168.36	0.1698	0.0559
Mercury	26109-05-06 18:57 G	11257302.16	11257302.29	11257302.42	0.1841	0.0742
Mercury	26110-02-27 01:55 G	11257598.51	11257598.58	11257598.65	0.1704	0.1425

Mercury	26121-06-25 01:26 G	11261734.48	11261734.56	11261734.64	0.1684	0.1286
Mercury	26130-11-15 09:36 G	11265164.77	11265164.90	11265165.02	0.1691	0.0422
Venus	26133-10-07 14:09 G	11266221.94	11266222.09	11266222.25	0.1821	0.0755
Mercury	26139-06-15 16:48 G	11268299.07	11268299.20	11268299.33	0.1849	0.0789
Venus	26140-03-22 18:29 G	11268580.10	11268580.27	11268580.44	0.1721	0.0224
Mercury	26140-04-06 17:45 G	11268595.11	11268595.24	11268595.36	0.1698	0.0446
Mercury	26148-11-04 19:26 G	11271729.17	11271729.31	11271729.44	0.1841	0.0582
Mercury	26149-08-28 02:09 G	11272025.50	11272025.59	11272025.67	0.1705	0.1304
Mercury	26160-12-24 01:41 G	11276161.50	11276161.57	11276161.64	0.1684	0.1414
Moon	26161-05-07 07:55 G	11276295.65	11276295.83	11276296.02	0.1582	0.0252
Earth	26161-05-07 14:38 G	11276295.92	11276296.11	11276296.29	0.1582	0.0041 *
Mercury	26170-05-16 09:50 G	11279591.78	11279591.91	11279592.03	0.1690	0.0550
Mercury	26178-12-14 17:17 G	11282726.10	11282726.22	11282726.34	0.1849	0.0960
Mercury	26179-10-06 17:45 G	11283022.12	11283022.24	11283022.37	0.1697	0.0326
Mercury	26188-05-05 19:41 G	11286156.18	11286156.32	11286156.46	0.1841	0.0422
Mercury	26189-02-26 02:09 G	11286452.50	11286452.59	11286452.68	0.1704	0.1185
Mercury	26197-09-25 22:19 G	11289586.40	11289586.43	11289586.46	0.1833	0.1784
Venus	26199-08-04 20:24 G	11290264.18	11290264.35	11290264.53	0.1817	0.0246
Mercury	26200-06-25 01:41 G	11290588.52	11290588.57	11290588.62	0.1684	0.1538
Venus	26206-01-19 04:19 G	11292622.50	11292622.68	11292622.85	0.1724	0.0117
Mercury	26209-11-15 09:50 G	11294018.79	11294018.91	11294019.03	0.1691	0.0667
Mercury	26218-06-15 17:17 G	11297153.11	11297153.22	11297153.33	0.1850	0.1098
Mercury	26219-04-07 18:00 G	11297449.12	11297449.25	11297449.38	0.1697	0.0197
Mercury	26227-11-05 20:09 G	11300583.20	11300583.34	11300583.48	0.1842	0.0247
Mercury	26228-08-28 02:24 G	11300879.50	11300879.60	11300879.70	0.1704	0.1063
Mercury	26237-03-27 22:33 G	11304013.38	11304013.44	11304013.51	0.1833	0.1628
Mercury	26239-12-25 01:55 G	11305015.56	11305015.58	11305015.60	0.1684	0.1659
Moon	26240-05-10 10:33 G	11305152.87	11305152.94	11305153.02	0.1582	0.1461
Earth	26240-05-10 12:43 G	11305152.93	11305153.03	11305153.14	0.1582	0.1309 *
Mercury	26249-05-16 09:50 G	11308445.80	11308445.91	11308446.03	0.1690	0.0793

Mercury	26257-12-14 18:00 G	11311580.15	11311580.25	11311580.35	0.1850	0.1283
Mercury	26258-10-06 18:00 G	11311876.12	11311876.25	11311876.39	0.1697	0.0100
Venus	26265-06-02 02:24 G	11314306.43	11314306.60	11314306.77	0.1812	0.0280
Mercury	26267-05-06 20:24 G	11315010.21	11315010.35	11315010.49	0.1841	0.0097
Mercury	26268-02-27 02:24 G	11315306.49	11315306.60	11315306.71	0.1704	0.0942
Venus	26271-11-16 13:26 G	11316664.89	11316665.06	11316665.22	0.1728	0.0475
Mercury	26276-09-25 23:02 G	11318440.37	11318440.46	11318440.54	0.1833	0.1470
Mercury	26288-11-14 10:05 G	11322872.81	11322872.92	11322873.03	0.1690	0.0919
Mercury	26297-06-14 18:14 G	11326007.17	11326007.26	11326007.35	0.1850	0.1440
Mercury	26298-04-06 18:14 G	11326303.13	11326303.26	11326303.39	0.1697	0.0045
Mercury	26306-11-05 20:53 G	11329437.23	11329437.37	11329437.51	0.1842	0.0073
Mercury	26307-08-29 02:24 G	11329733.49	11329733.60	11329733.72	0.1704	0.0824
Mercury	26316-03-27 23:31 G	11332867.38	11332867.48	11332867.58	0.1833	0.1299
Mercury	26317-01-18 10:48 G	11333163.93	11333163.95	11333163.96	0.1711	0.1694
Mercury	26328-05-16 10:05 G	11337299.82	11337299.92	11337300.03	0.1690	0.1042
Venus	26331-03-31 09:07 G	11338348.72	11338348.88	11338349.04	0.1807	0.0761
Mercury	26336-12-14 18:29 G	11340434.20	11340434.27	11340434.34	0.1850	0.1590
Venus	26337-09-13 22:33 G	11340707.29	11340707.44	11340707.59	0.1732	0.0835
Mercury	26337-10-06 18:29 G	11340730.14	11340730.27	11340730.40	0.1697	0.0175
Mercury	26346-05-06 21:21 G	11343864.24	11343864.39	11343864.53	0.1842	0.0244
Mercury	26347-02-27 02:38 G	11344160.49	11344160.61	11344160.73	0.1704	0.0703
Mercury	26355-09-26 23:45 G	11347294.38	11347294.49	11347294.61	0.1833	0.1133
Mercury	26356-07-19 11:02 G	11347590.91	11347590.96	11347591.00	0.1711	0.1570
Earth	26366-05-08 23:45 G	11351171.32	11351171.49	11351171.67	0.1583	0.0635
Moon	26366-05-09 05:45 G	11351171.56	11351171.74	11351171.92	0.1583	0.0432 *
Mercury	26367-11-15 10:19 G	11351726.84	11351726.93	11351727.03	0.1690	0.1166
Venus	26369-09-13 00:57 G	11352394.44	11352394.54	11352394.63	0.1719	0.1422
Mercury	26376-06-14 18:43 G	11354861.24	11354861.28	11354861.33	0.1850	0.1761
Mercury	26377-04-06 18:29 G	11355157.14	11355157.27	11355157.40	0.1697	0.0288
Mercury	26385-11-04 21:36 G	11358291.26	11358291.40	11358291.54	0.1842	0.0397

Mercury	26386-08-28 02:53 G	11358587.49	11358587.62	11358587.74	0.1704	0.0579
Mercury	26395-03-28 00:00 G	11361721.38	11361721.50	11361721.63	0.1834	0.0981
Mercury	26396-01-18 11:02 G	11362017.89	11362017.96	11362018.03	0.1710	0.1447
Venus	26397-01-25 15:50 G	11362391.03	11362391.16	11362391.28	0.1803	0.1247
Venus	26403-07-12 07:26 G	11364749.69	11364749.81	11364749.93	0.1736	0.1214
Mercury	26407-05-16 10:33 G	11366153.85	11366153.94	11366154.02	0.1690	0.1292
Mercury	26416-10-05 18:43 G	11369584.15	11369584.28	11369584.40	0.1696	0.0418
Moon	26421-11-09 23:45 G	11371445.34	11371445.49	11371445.64	0.1956	0.1411
Mercury	26425-05-05 21:50 G	11372718.28	11372718.41	11372718.55	0.1842	0.0560
Mercury	26426-02-26 02:53 G	11373014.49	11373014.62	11373014.74	0.1703	0.0459
Venus	26429-01-25 04:19 G	11374078.60	11374078.68	11374078.76	0.1818	0.1621
Mercury	26434-09-26 00:43 G	11376148.40	11376148.53	11376148.66	0.1834	0.0802
Venus	26435-07-11 10:33 G	11376436.80	11376436.94	11376437.07	0.1723	0.1081
Mercury	26435-07-19 11:02 G	11376444.88	11376444.96	11376445.04	0.1711	0.1332
Earth	26445-05-10 23:02 G	11380028.29	11380028.46	11380028.63	0.1583	0.0713
Moon	26445-05-10 23:31 G	11380028.32	11380028.48	11380028.65	0.1583	0.0568 *
Mercury	26446-11-14 10:33 G	11380580.87	11380580.94	11380581.01	0.1690	0.1415
Mercury	26456-04-05 18:43 G	11384011.16	11384011.28	11384011.41	0.1696	0.0546
Venus	26462-11-22 22:48 G	11386433.40	11386433.45	11386433.51	0.1798	0.1704
Mercury	26464-11-03 22:19 G	11387145.30	11387145.43	11387145.56	0.1843	0.0737
Mercury	26465-08-27 02:53 G	11387441.50	11387441.62	11387441.75	0.1703	0.0339
Venus	26469-05-08 16:19 G	11388792.11	11388792.18	11388792.25	0.1741	0.1594
Mercury	26474-03-27 00:57 G	11390575.40	11390575.54	11390575.67	0.1834	0.0646
Mercury	26475-01-17 11:17 G	11390871.88	11390871.97	11390872.06	0.1710	0.1212
Mercury	26486-05-15 10:48 G	11395007.90	11395007.95	11395008.00	0.1689	0.1542
Venus	26494-11-22 10:19 G	11398120.79	11398120.93	11398121.07	0.1814	0.1102
Mercury	26495-10-05 18:57 G	11398438.17	11398438.29	11398438.41	0.1696	0.0664
Venus	26501-05-08 19:41 G	11400479.16	11400479.32	11400479.48	0.1727	0.0730
Mercury	26504-05-05 22:33 G	11401572.32	11401572.44	11401572.57	0.1842	0.0879
Mercury	26505-02-26 03:07 G	11401868.50	11401868.63	11401868.76	0.1703	0.0212

Mercury	26513-09-26 01:12 G	11405002.42	11405002.55	11405002.69	0.1834	0.0486
Mercury	26514-07-19 11:31 G	11405298.88	11405298.98	11405299.07	0.1710	0.1085
Mercury	26525-11-14 10:48 G	11409434.94	11409434.95	11409434.97	0.1689	0.1671
Mercury	26535-04-06 18:57 G	11412865.18	11412865.29	11412865.41	0.1696	0.0786
Mercury	26543-11-04 23:02 G	11415999.34	11415999.46	11415999.58	0.1843	0.1052
Mercury	26544-08-27 03:07 G	11416295.50	11416295.63	11416295.76	0.1703	0.0098
Mercury	26553-03-27 01:41 G	11419429.43	11419429.57	11419429.71	0.1834	0.0315
Mercury	26554-01-17 11:31 G	11419725.87	11419725.98	11419726.08	0.1710	0.0971
Venus	26560-09-19 16:48 G	11422163.03	11422163.20	11422163.36	0.1809	0.0596
Mercury	26562-08-17 04:05 G	11422859.62	11422859.67	11422859.72	0.1826	0.1703
Venus	26567-03-06 04:33 G	11424521.52	11424521.69	11424521.86	0.1731	0.0359
Moon	26571-05-09 03:50 G	11426046.58	11426046.66	11426046.74	0.1584	0.1419
Earth	26571-05-09 09:36 G	11426046.79	11426046.90	11426047.01	0.1584	0.1258
Mercury	26574-10-05 19:12 G	11427292.19	11427292.30	11427292.41	0.1696	0.0919
Mercury	26583-05-05 23:31 G	11430426.37	11430426.48	11430426.58	0.1843	0.1220
Mercury	26584-02-26 03:21 G	11430722.51	11430722.64	11430722.77	0.1703	0.0046
Mercury	26592-09-25 02:09 G	11433856.45	11433856.59	11433856.73	0.1834	0.0149
Mercury	26593-07-18 11:31 G	11434152.87	11434152.98	11434153.09	0.1710	0.0844
Mercury	26602-02-16 04:33 G	11437286.61	11437286.69	11437286.77	0.1826	0.1527
Mercury	26614-04-06 19:12 G	11441719.20	11441719.30	11441719.40	0.1696	0.1035
Mercury	26622-11-04 23:45 G	11444853.40	11444853.49	11444853.58	0.1843	0.1374
Mercury	26623-08-28 03:21 G	11445149.52	11445149.64	11445149.77	0.1703	0.0173
Venus	26626-07-18 23:17 G	11446205.30	11446205.47	11446205.65	0.1804	0.0105
Mercury	26632-03-27 02:24 G	11448283.46	11448283.60	11448283.74	0.1835	0.0017
Venus	26633-01-01 14:09 G	11448563.91	11448564.09	11448564.26	0.1735	0.0021
Mercury	26633-01-17 11:45 G	11448579.87	11448579.99	11448580.11	0.1710	0.0721
Mercury	26641-08-17 05:02 G	11451713.61	11451713.71	11451713.80	0.1826	0.1356
Mercury	26642-06-09 19:55 G	11452010.29	11452010.33	11452010.38	0.1717	0.1604
Moon	26650-05-12 07:55 G	11454903.64	11454903.83	11454904.03	0.1584	0.0251
Earth	26650-05-12 08:24 G	11454903.67	11454903.85	11454904.04	0.1584	0.0098 *

Mercury	26653-10-05 19:26 G	11456146.21	11456146.31	11456146.40	0.1696	0.1165
Mercury	26662-05-06 00:00 G	11459280.43	11459280.50	11459280.58	0.1843	0.1539
Mercury	26663-02-26 03:36 G	11459576.52	11459576.65	11459576.78	0.1702	0.0283
Mercury	26671-09-26 02:53 G	11462710.48	11462710.62	11462710.76	0.1835	0.0183
Mercury	26672-07-18 11:45 G	11463006.87	11463006.99	11463007.11	0.1710	0.0601
Mercury	26681-02-15 05:17 G	11466140.61	11466140.72	11466140.82	0.1826	0.1209
Mercury	26681-12-08 20:09 G	11466437.28	11466437.34	11466437.40	0.1717	0.1477
Venus	26692-05-15 05:45 G	11470247.57	11470247.74	11470247.91	0.1800	0.0399
Mercury	26693-04-05 19:41 G	11470573.23	11470573.32	11470573.40	0.1695	0.1296
Venus	26698-10-29 22:48 G	11472606.28	11472606.45	11472606.62	0.1739	0.0375
Mercury	26701-11-05 00:29 G	11473707.48	11473707.52	11473707.57	0.1844	0.1716
Mercury	26702-08-28 03:36 G	11474003.53	11474003.65	11474003.78	0.1702	0.0407
Earth	26705-11-11 22:33 G	11475175.23	11475175.44	11475175.64	0.1955	0.0079
Moon	26705-11-12 00:43 G	11475175.35	11475175.53	11475175.72	0.1955	0.0191 *
Mercury	26711-03-28 03:07 G	11477137.49	11477137.63	11477137.77	0.1835	0.0343
Mercury	26712-01-18 12:00 G	11477433.87	11477434.00	11477434.12	0.1709	0.0481
Mercury	26720-08-17 05:45 G	11480567.62	11480567.74	11480567.86	0.1827	0.1026
Mercury	26721-06-09 20:09 G	11480864.27	11480864.34	11480864.42	0.1717	0.1361
Earth	26729-05-15 07:26 G	11483760.74	11483760.81	11483760.88	0.1583	0.1447
Moon	26729-05-15 12:43 G	11483760.93	11483761.03	11483761.14	0.1583	0.1311
Mercury	26732-10-05 19:41 G	11485000.25	11485000.32	11485000.39	0.1695	0.1416
Mercury	26742-02-26 03:50 G	11488430.54	11488430.66	11488430.78	0.1702	0.0534
Mercury	26750-09-26 03:36 G	11491564.51	11491564.65	11491564.79	0.1836	0.0511
Mercury	26751-07-19 12:00 G	11491860.88	11491861.00	11491861.13	0.1709	0.0352
Venus	26758-03-13 12:57 G	11494289.89	11494290.04	11494290.19	0.1795	0.0854
Mercury	26760-02-16 06:14 G	11494994.63	11494994.76	11494994.89	0.1827	0.0860
Mercury	26760-12-08 20:24 G	11495291.26	11495291.35	11495291.43	0.1716	0.1241
Venus	26764-08-27 07:55 G	11496648.67	11496648.83	11496648.98	0.1743	0.0748
Mercury	26772-04-05 19:41 G	11499427.27	11499427.32	11499427.37	0.1695	0.1542
Mercury	26781-08-27 03:50 G	11502857.54	11502857.66	11502857.78	0.1702	0.0659

Mercury	26790-03-27 04:05 G	11505991.53	11505991.67	11505991.80	0.1835	0.0676
Mercury	26791-01-17 12:14 G	11506287.88	11506288.01	11506288.13	0.1709	0.0238
Venus	26796-08-26 11:17 G	11508335.91	11508335.97	11508336.04	0.1730	0.1589
Mercury	26799-08-17 06:29 G	11509421.63	11509421.77	11509421.90	0.1827	0.0709
Mercury	26800-06-08 20:38 G	11509718.26	11509718.36	11509718.45	0.1716	0.1111
Mercury	26811-10-05 19:55 G	11513854.32	11513854.33	11513854.35	0.1695	0.1679
Mercury	26821-02-25 04:05 G	11517284.55	11517284.67	11517284.78	0.1702	0.0783
Venus	26824-01-08 19:55 G	11518332.22	11518332.33	11518332.45	0.1791	0.1321
Mercury	26829-09-25 04:19 G	11520418.56	11520418.68	11520418.81	0.1836	0.0842
Venus	26830-06-24 16:19 G	11520691.05	11520691.18	11520691.31	0.1747	0.1143
Mercury	26830-07-18 12:14 G	11520714.88	11520715.01	11520715.14	0.1709	0.0106
Mercury	26839-02-15 06:57 G	11523848.65	11523848.79	11523848.93	0.1827	0.0529
Mercury	26839-12-08 20:24 G	11524145.25	11524145.35	11524145.46	0.1716	0.0999
Earth	26855-05-12 18:14 G	11529779.08	11529779.26	11529779.44	0.1585	0.0532
Moon	26855-05-12 18:29 G	11529779.11	11529779.27	11529779.43	0.1585	0.0669 *
Venus	26856-01-08 06:57 G	11530019.70	11530019.79	11530019.89	0.1806	0.1476
Mercury	26860-08-26 04:19 G	11531711.57	11531711.68	11531711.79	0.1702	0.0917
Venus	26862-06-23 20:24 G	11532378.23	11532378.35	11532378.47	0.1734	0.1232
Mercury	26869-03-26 04:48 G	11534845.58	11534845.70	11534845.82	0.1836	0.1003
Mercury	26870-01-16 12:29 G	11535141.89	11535142.02	11535142.15	0.1709	0.0044
Mercury	26878-08-16 07:26 G	11538275.67	11538275.81	11538275.95	0.1827	0.0358
Mercury	26879-06-08 20:38 G	11538572.25	11538572.36	11538572.47	0.1716	0.0868
Mercury	26888-01-06 09:36 G	11541705.87	11541705.90	11541705.94	0.1819	0.1747
Venus	26889-11-05 03:36 G	11542374.62	11542374.65	11542374.68	0.1786	0.1757
Venus	26896-04-21 00:43 G	11544733.45	11544733.53	11544733.61	0.1752	0.1545
Mercury	26900-02-25 04:19 G	11546138.58	11546138.68	11546138.78	0.1701	0.1035
Mercury	26908-09-25 05:17 G	11549272.61	11549272.72	11549272.82	0.1836	0.1176
Mercury	26909-07-18 12:29 G	11549568.89	11549569.02	11549569.15	0.1709	0.0151
Mercury	26918-02-15 07:41 G	11552702.67	11552702.82	11552702.96	0.1828	0.0210
Mercury	26918-12-08 20:53 G	11552999.25	11552999.37	11552999.48	0.1716	0.0741

Venus	26921-11-05 13:41 G	11554061.93	11554062.07	11554062.22	0.1801	0.0983
Mercury	26927-07-08 10:05 G	11556132.85	11556132.92	11556132.99	0.1819	0.1576
Venus	26928-04-21 05:17 G	11556420.57	11556420.72	11556420.87	0.1738	0.0865
Mercury	26928-04-30 05:02 G	11556429.68	11556429.71	11556429.75	0.1723	0.1639
Moon	26934-05-15 11:31 G	11558635.84	11558635.98	11558636.13	0.1585	0.0945
Earth	26934-05-15 17:17 G	11558636.07	11558636.22	11558636.38	0.1585	0.0837 *
Mercury	26939-08-27 04:19 G	11560565.59	11560565.68	11560565.78	0.1701	0.1167
Mercury	26948-03-26 05:31 G	11563699.63	11563699.73	11563699.83	0.1836	0.1335
Mercury	26949-01-16 12:43 G	11563995.90	11563996.03	11563996.15	0.1708	0.0276
Mercury	26957-08-16 08:09 G	11567129.70	11567129.84	11567129.99	0.1828	0.0028
Mercury	26958-06-08 20:53 G	11567426.25	11567426.37	11567426.49	0.1716	0.0622
Mercury	26967-01-06 10:33 G	11570559.85	11570559.94	11570560.03	0.1819	0.1415
Mercury	26967-10-30 05:17 G	11570856.66	11570856.72	11570856.78	0.1723	0.1514
Mercury	26979-02-25 04:33 G	11574992.61	11574992.69	11574992.78	0.1701	0.1298
Venus	26987-09-02 20:38 G	11578104.19	11578104.36	11578104.53	0.1797	0.0499
Mercury	26987-09-25 06:00 G	11578126.67	11578126.75	11578126.83	0.1837	0.1508
Mercury	26988-07-17 12:43 G	11578422.91	11578423.03	11578423.16	0.1708	0.0408
Earth	26989-11-11 13:26 G	11578904.97	11578905.06	11578905.16	0.1952	0.1729
Moon	26989-11-11 16:33 G	11578905.14	11578905.19	11578905.24	0.1952	0.1893 *
Venus	26994-02-16 14:09 G	11580462.92	11580463.09	11580463.26	0.1742	0.0485
Mercury	26997-02-14 08:38 G	11581556.71	11581556.86	11581557.00	0.1828	0.0145
Mercury	26997-12-07 20:53 G	11581853.25	11581853.37	11581853.50	0.1715	0.0501

28TH MILLENNIUM CE

This is a list of transits visible from Mars in the 28th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	27006-07-08 10:48	G	11584986.85	11584986.95	11584987.06	0.1819	0.1248	
Mercury	27007-05-01 05:17	G	11585283.65	11585283.72	11585283.79	0.1723	0.1393	
Mercury	27018-08-27 04:48	G	11589419.63	11589419.70	11589419.77	0.1701	0.1422	
Mercury	27027-03-27 06:14	G	11592553.70	11592553.76	11592553.82	0.1837	0.1669	
Mercury	27028-01-17 12:57	G	11592849.91	11592850.04	11592850.16	0.1708	0.0527	
Mercury	27036-08-16 08:53	G	11595983.73	11595983.87	11595984.01	0.1828	0.0297	
Mercury	27037-06-08 21:07	G	11596280.26	11596280.38	11596280.51	0.1715	0.0367	
Mercury	27046-01-06 11:31	G	11599413.86	11599413.98	11599414.10	0.1820	0.1063	
Mercury	27046-10-30 05:31	G	11599710.64	11599710.73	11599710.81	0.1722	0.1269	
Venus	27053-07-01 03:36	G	11602146.48	11602146.65	11602146.83	0.1792	0.0028	
Mercury	27058-02-25 04:48	G	11603846.65	11603846.70	11603846.75	0.1701	0.1549	
Venus	27059-12-15 23:31	G	11604505.30	11604505.48	11604505.65	0.1746	0.0123	
Earth	27060-05-13 04:05	G	11604654.54	11604654.67	11604654.79	0.1587	0.1169	
Moon	27060-05-13 05:17	G	11604654.57	11604654.72	11604654.87	0.1587	0.1053	*
Mercury	27066-09-25 06:43	G	11606980.78	11606980.78	11606980.78	0.1837	0.1837	
Mercury	27067-07-18 12:57	G	11607276.92	11607277.04	11607277.16	0.1708	0.0658	
Mercury	27076-02-15 09:21	G	11610410.75	11610410.89	11610411.03	0.1828	0.0480	
Mercury	27076-12-07 21:07	G	11610707.26	11610707.38	11610707.51	0.1715	0.0253	
Mercury	27085-07-07 11:45	G	11613840.86	11613840.99	11613841.11	0.1820	0.0913	
Mercury	27086-04-30 05:31	G	11614137.64	11614137.73	11614137.83	0.1723	0.1140	
Mercury	27097-08-26 05:02	G	11618273.70	11618273.71	11618273.72	0.1701	0.1686	
Mercury	27107-01-17 13:12	G	11621703.94	11621704.05	11621704.16	0.1708	0.0783	
Mercury	27115-08-17 09:50	G	11624837.77	11624837.91	11624838.04	0.1829	0.0648	
Mercury	27116-06-08 21:21	G	11625134.26	11625134.39	11625134.52	0.1715	0.0117	
Venus	27119-04-29 10:33	G	11626188.77	11626188.94	11626189.11	0.1788	0.0447	
Mercury	27125-01-06 12:14	G	11628267.88	11628268.01	11628268.14	0.1820	0.0733	
Venus	27125-10-13 07:41	G	11628547.65	11628547.82	11628548.00	0.1750	0.0283	

Mercury	27125-10-30 05:45 G	11628564.63	11628564.74	11628564.84	0.1722	0.1020
Earth	27139-05-17 03:21 G	11633511.45	11633511.64	11633511.82	0.1586	0.0214
Moon	27139-05-17 09:36 G	11633511.71	11633511.90	11633512.10	0.1586	0.0119 *
Mercury	27146-07-18 13:26 G	11636130.95	11636131.06	11636131.16	0.1708	0.0915
Mercury	27155-02-15 10:05 G	11639264.79	11639264.92	11639265.05	0.1829	0.0801
Mercury	27155-12-08 21:36 G	11639561.27	11639561.40	11639561.53	0.1715	0.0020
Mercury	27164-07-07 12:43 G	11642694.89	11642695.03	11642695.17	0.1820	0.0560
Mercury	27165-04-30 05:45 G	11642991.63	11642991.74	11642991.85	0.1722	0.0895
Venus	27185-02-23 18:29 G	11650231.12	11650231.27	11650231.42	0.1783	0.0881
Mercury	27186-01-16 13:26 G	11650557.96	11650558.06	11650558.16	0.1707	0.1040
Venus	27191-08-10 16:48 G	11652590.04	11652590.20	11652590.36	0.1754	0.0666
Mercury	27194-08-16 10:33 G	11653691.82	11653691.94	11653692.06	0.1829	0.0985
Mercury	27195-06-08 21:36 G	11653988.27	11653988.40	11653988.53	0.1715	0.0135
Mercury	27204-01-06 12:57 G	11657121.90	11657122.04	11657122.19	0.1820	0.0402
Mercury	27204-10-29 06:00 G	11657418.63	11657418.75	11657418.86	0.1722	0.0764
Mercury	27213-05-28 15:21 G	11660552.12	11660552.14	11660552.17	0.1812	0.1778
Mercury	27214-03-21 14:09 G	11660849.06	11660849.09	11660849.12	0.1729	0.1669
Mercury	27225-07-17 13:41 G	11664984.97	11664985.07	11664985.16	0.1707	0.1172
Mercury	27234-02-14 11:02 G	11668118.85	11668118.96	11668119.07	0.1829	0.1151
Mercury	27234-12-07 21:50 G	11668415.28	11668415.41	11668415.53	0.1714	0.0269
Mercury	27243-07-07 13:26 G	11671548.92	11671549.06	11671549.21	0.1821	0.0229
Mercury	27244-04-29 06:00 G	11671845.63	11671845.75	11671845.87	0.1722	0.0642
Venus	27250-12-22 01:55 G	11674273.46	11674273.58	11674273.69	0.1779	0.1326
Mercury	27252-11-26 15:50 G	11674979.10	11674979.16	11674979.23	0.1812	0.1596
Mercury	27253-09-19 14:24 G	11675276.04	11675276.10	11675276.15	0.1729	0.1548
Venus	27257-06-07 00:57 G	11676632.40	11676632.54	11676632.67	0.1758	0.1080
Mercury	27265-01-15 13:41 G	11679411.99	11679412.07	11679412.15	0.1707	0.1299
Mercury	27273-08-15 11:17 G	11682545.87	11682545.97	11682546.07	0.1830	0.1309
Mercury	27274-06-07 22:05 G	11682842.29	11682842.42	11682842.54	0.1714	0.0404
Venus	27282-12-21 11:45 G	11685960.88	11685960.99	11685961.09	0.1794	0.1404

Mercury	27283-01-05 14:09 G	11685975.94	11685976.09	11685976.23	0.1821	0.0059
Mercury	27283-10-29 06:14 G	11686272.63	11686272.76	11686272.88	0.1721	0.0518
Venus	27289-06-06 06:14 G	11688319.65	11688319.76	11688319.86	0.1745	0.1383
Mercury	27292-05-27 16:19 G	11689406.09	11689406.18	11689406.27	0.1812	0.1435
Mercury	27293-03-20 14:24 G	11689703.03	11689703.10	11689703.17	0.1729	0.1422
Mercury	27304-07-17 13:55 G	11693839.01	11693839.08	11693839.15	0.1707	0.1431
Mercury	27313-02-14 11:45 G	11696972.91	11696972.99	11696973.07	0.1830	0.1494
Mercury	27313-12-07 22:05 G	11697269.29	11697269.42	11697269.54	0.1714	0.0521
Venus	27316-10-19 10:05 G	11698315.89	11698315.92	11698315.95	0.1775	0.1737
Mercury	27322-07-07 14:09 G	11700402.95	11700403.09	11700403.24	0.1821	0.0119
Venus	27323-04-05 09:07 G	11700674.79	11700674.88	11700674.97	0.1763	0.1498
Mercury	27323-04-30 06:14 G	11700699.64	11700699.76	11700699.89	0.1722	0.0385
Mercury	27331-11-27 16:48 G	11703833.10	11703833.20	11703833.30	0.1813	0.1260
Mercury	27332-09-19 14:38 G	11704130.03	11704130.11	11704130.19	0.1729	0.1293
Mercury	27344-01-16 13:55 G	11708266.03	11708266.08	11708266.13	0.1707	0.1561
Moon	27344-05-16 07:26 G	11708386.63	11708386.81	11708387.00	0.1589	0.0325
Earth	27344-05-16 13:26 G	11708386.88	11708387.06	11708387.24	0.1589	0.0419 *
Venus	27348-10-18 18:57 G	11710003.14	11710003.29	11710003.44	0.1790	0.0938
Mercury	27352-08-15 12:14 G	11711399.95	11711400.01	11711400.07	0.1830	0.1658
Moon	27352-11-17 01:26 G	11711493.41	11711493.56	11711493.71	0.1951	0.1450
Earth	27352-11-17 07:41 G	11711493.72	11711493.82	11711493.93	0.1951	0.1664
Mercury	27353-06-07 22:05 G	11711696.30	11711696.42	11711696.54	0.1714	0.0655
Venus	27355-04-04 14:53 G	11712361.98	11712362.12	11712362.26	0.1749	0.1000
Mercury	27362-01-05 14:53 G	11714829.98	11714830.12	11714830.26	0.1821	0.0291
Mercury	27362-10-29 06:29 G	11715126.64	11715126.77	11715126.89	0.1721	0.0267
Mercury	27371-05-28 17:17 G	11718260.10	11718260.22	11718260.33	0.1812	0.1086
Mercury	27372-03-20 14:38 G	11718557.02	11718557.11	11718557.20	0.1729	0.1173
Mercury	27383-07-17 14:09 G	11722693.08	11722693.09	11722693.10	0.1707	0.1695
Mercury	27392-02-14 12:29 G	11725827.01	11725827.02	11725827.03	0.1830	0.1817
Mercury	27392-12-06 22:19 G	11726123.32	11726123.43	11726123.54	0.1714	0.0784

Mercury	27401-07-07 15:21 G	11729257.00	11729257.14	11729257.28	0.1822	0.0466
Mercury	27402-04-30 06:29 G	11729553.64	11729553.77	11729553.90	0.1721	0.0134
Mercury	27410-11-27 17:45 G	11732687.11	11732687.24	11732687.36	0.1813	0.0915
Mercury	27411-09-20 14:53 G	11732984.02	11732984.12	11732984.22	0.1728	0.1042
Venus	27414-08-17 02:24 G	11734045.43	11734045.60	11734045.76	0.1785	0.0475
Venus	27421-01-30 23:17 G	11736404.31	11736404.47	11736404.64	0.1753	0.0608
Moon	27423-05-20 09:36 G	11737243.73	11737243.90	11737244.08	0.1588	0.0757
Earth	27423-05-20 12:57 G	11737243.89	11737244.04	11737244.19	0.1588	0.0977 *
Mercury	27432-06-07 22:19 G	11740550.32	11740550.43	11740550.54	0.1714	0.0909
Mercury	27441-01-05 15:36 G	11743684.01	11743684.15	11743684.29	0.1822	0.0624
Mercury	27441-10-29 06:43 G	11743980.65	11743980.78	11743980.91	0.1721	0.0005
Mercury	27450-05-28 18:00 G	11747114.12	11747114.25	11747114.39	0.1813	0.0749
Mercury	27451-03-21 14:53 G	11747411.01	11747411.12	11747411.23	0.1728	0.0916
Mercury	27471-12-07 22:33 G	11754977.34	11754977.44	11754977.54	0.1713	0.1040
Venus	27480-06-13 09:50 G	11758087.73	11758087.91	11758088.08	0.1781	0.0030
Mercury	27480-07-06 16:05 G	11758111.04	11758111.17	11758111.30	0.1822	0.0798
Mercury	27481-04-29 06:43 G	11758407.65	11758407.78	11758407.91	0.1721	0.0125
Venus	27486-11-28 08:24 G	11760446.67	11760446.85	11760447.02	0.1757	0.0225
Mercury	27489-11-26 18:43 G	11761541.14	11761541.28	11761541.41	0.1813	0.0571
Mercury	27490-09-19 15:07 G	11761838.01	11761838.13	11761838.24	0.1728	0.0793
Mercury	27500-02-09 23:31 G	11765268.45	11765268.48	11765268.50	0.1736	0.1701
Mercury	27511-06-08 22:48 G	11769404.36	11769404.45	11769404.54	0.1713	0.1177
Mercury	27520-01-06 16:33 G	11772538.07	11772538.19	11772538.31	0.1822	0.0983
Mercury	27520-10-29 06:57 G	11772834.66	11772834.79	11772834.91	0.1720	0.0256
Mercury	27529-05-28 18:57 G	11775968.15	11775968.29	11775968.43	0.1813	0.0406
Mercury	27530-03-21 15:07 G	11776265.01	11776265.13	11776265.25	0.1728	0.0663
Mercury	27538-10-18 21:21 G	11779398.37	11779398.39	11779398.42	0.1805	0.1770
Mercury	27539-08-11 23:31 G	11779695.43	11779695.48	11779695.53	0.1735	0.1582
Venus	27546-04-11 17:17 G	11782130.05	11782130.22	11782130.38	0.1776	0.0432
Earth	27549-05-17 22:48 G	11783262.32	11783262.45	11783262.59	0.1592	0.1066

Moon	27549-05-18 05:17 G	11783262.59	11783262.72	11783262.86	0.1591	0.1097 *
Mercury	27550-12-07 22:48 G	11783831.37	11783831.45	11783831.53	0.1713	0.1298
Venus	27552-09-25 16:19 G	11784489.01	11784489.18	11784489.36	0.1761	0.0194
Mercury	27559-07-07 16:48 G	11786965.09	11786965.20	11786965.31	0.1822	0.1128
Mercury	27560-04-29 06:57 G	11787261.67	11787261.79	11787261.92	0.1720	0.0392
Mercury	27568-11-26 19:26 G	11790395.17	11790395.31	11790395.46	0.1814	0.0227
Mercury	27569-09-19 15:21 G	11790692.02	11790692.14	11790692.26	0.1728	0.0533
Mercury	27578-04-18 21:50 G	11793825.35	11793825.41	11793825.48	0.1805	0.1600
Mercury	27579-02-09 23:31 G	11794122.41	11794122.48	11794122.55	0.1735	0.1456
Mercury	27590-06-07 23:02 G	11798258.39	11798258.46	11798258.53	0.1713	0.1434
Mercury	27599-01-05 17:17 G	11801392.13	11801392.22	11801392.32	0.1823	0.1316
Mercury	27599-10-29 07:12 G	11801688.68	11801688.80	11801688.92	0.1720	0.0513
Mercury	27608-05-27 19:55 G	11804822.18	11804822.33	11804822.47	0.1814	0.0071
Mercury	27609-03-20 15:21 G	11805119.01	11805119.14	11805119.26	0.1728	0.0409
Venus	27612-02-07 01:26 G	11806172.41	11806172.56	11806172.71	0.1772	0.0849
Mercury	27617-10-17 22:05 G	11808252.34	11808252.42	11808252.51	0.1805	0.1443
Venus	27618-07-24 00:57 G	11808531.38	11808531.54	11808531.71	0.1765	0.0598
Mercury	27618-08-10 23:45 G	11808549.41	11808549.49	11808549.57	0.1735	0.1320
Earth	27628-05-19 22:19 G	11812119.24	11812119.43	11812119.61	0.1590	0.0334
Moon	27628-05-20 01:26 G	11812119.40	11812119.56	11812119.73	0.1590	0.0557 *
Mercury	27629-12-06 23:02 G	11812685.42	11812685.46	11812685.51	0.1713	0.1568
Moon	27636-11-17 22:48 G	11815223.27	11815223.45	11815223.64	0.1948	0.0308
Earth	27636-11-18 01:26 G	11815223.35	11815223.56	11815223.77	0.1948	0.0028 *
Mercury	27638-07-06 17:45 G	11815819.16	11815819.24	11815819.32	0.1823	0.1489
Mercury	27639-04-29 07:12 G	11816115.68	11816115.80	11816115.92	0.1720	0.0641
Mercury	27647-11-26 20:24 G	11819249.20	11819249.35	11819249.49	0.1814	0.0124
Mercury	27648-09-18 15:36 G	11819546.02	11819546.15	11819546.27	0.1727	0.0281
Mercury	27657-04-17 22:48 G	11822679.34	11822679.45	11822679.55	0.1805	0.1259
Mercury	27658-02-08 23:45 G	11822976.40	11822976.49	11822976.58	0.1735	0.1207
Mercury	27669-06-06 23:17 G	11827112.45	11827112.47	11827112.48	0.1713	0.1694

Venus	27677-12-04 09:07 G	11830214.76	11830214.88	11830215.00	0.1767	0.1279
Mercury	27678-01-04 18:00 G	11830246.19	11830246.25	11830246.31	0.1823	0.1644
Mercury	27678-10-28 07:26 G	11830542.70	11830542.81	11830542.93	0.1720	0.0780
Venus	27684-05-20 08:38 G	11832573.72	11832573.86	11832574.00	0.1770	0.1035
Mercury	27687-05-27 20:38 G	11833676.22	11833676.36	11833676.51	0.1815	0.0285
Mercury	27688-03-19 15:36 G	11833973.02	11833973.15	11833973.28	0.1727	0.0151
Mercury	27696-10-16 23:17 G	11837106.35	11837106.47	11837106.59	0.1806	0.1081
Mercury	27697-08-10 00:00 G	11837403.40	11837403.50	11837403.59	0.1735	0.1076
Moon	27707-05-23 18:57 G	11840976.25	11840976.29	11840976.34	0.1589	0.1529
Venus	27709-12-04 17:31 G	11841902.13	11841902.23	11841902.34	0.1782	0.1387
Venus	27716-05-20 15:07 G	11844261.04	11844261.13	11844261.21	0.1756	0.1516
Mercury	27717-07-06 18:29 G	11844673.27	11844673.27	11844673.27	0.1823	0.1820
Mercury	27718-04-29 07:26 G	11844969.70	11844969.81	11844969.92	0.1720	0.0900
Mercury	27726-11-26 21:07 G	11848103.24	11848103.38	11848103.52	0.1814	0.0459
Mercury	27727-09-19 15:36 G	11848400.03	11848400.15	11848400.28	0.1727	0.0064
Mercury	27736-04-17 23:31 G	11851533.35	11851533.48	11851533.60	0.1806	0.0927
Mercury	27737-02-09 00:00 G	11851830.40	11851830.50	11851830.61	0.1735	0.0942
Venus	27743-10-02 17:45 G	11854257.19	11854257.24	11854257.29	0.1763	0.1675
Venus	27750-03-18 16:33 G	11856616.09	11856616.19	11856616.28	0.1775	0.1479
Mercury	27757-10-28 07:41 G	11859396.72	11859396.82	11859396.92	0.1719	0.1032
Mercury	27766-05-27 21:36 G	11862530.26	11862530.40	11862530.53	0.1815	0.0625
Mercury	27767-03-20 15:50 G	11862827.03	11862827.16	11862827.29	0.1727	0.0108
Venus	27775-10-02 01:12 G	11865944.41	11865944.55	11865944.70	0.1778	0.0938
Mercury	27775-10-18 00:00 G	11865960.37	11865960.50	11865960.64	0.1806	0.0739
Mercury	27776-08-10 00:00 G	11866257.39	11866257.50	11866257.61	0.1734	0.0823
Venus	27782-03-17 23:31 G	11868303.34	11868303.48	11868303.61	0.1760	0.1110
Mercury	27797-04-28 07:55 G	11873823.73	11873823.83	11873823.92	0.1719	0.1170
Mercury	27805-11-26 22:05 G	11876957.29	11876957.42	11876957.55	0.1815	0.0805
Mercury	27806-09-19 16:05 G	11877254.04	11877254.17	11877254.29	0.1727	0.0247
Mercury	27815-04-19 00:29 G	11880387.38	11880387.52	11880387.66	0.1806	0.0570

Mercury	27816-02-10 00:14 G	11880684.39	11880684.51	11880684.62	0.1734	0.0695
Mercury	27825-07-02 08:38 G	11884114.81	11884114.86	11884114.90	0.1742	0.1620
Moon	27833-05-21 04:33 G	11886994.50	11886994.69	11886994.88	0.1593	0.0522
Earth	27833-05-21 07:41 G	11886994.64	11886994.82	11886995.01	0.1593	0.0321 *
Mercury	27836-10-28 07:55 G	11888250.74	11888250.83	11888250.91	0.1719	0.1294
Venus	27841-07-30 08:53 G	11889986.71	11889986.87	11889987.04	0.1774	0.0489
Mercury	27845-05-27 22:19 G	11891384.31	11891384.43	11891384.55	0.1815	0.0966
Mercury	27846-03-20 16:05 G	11891681.04	11891681.17	11891681.29	0.1727	0.0366
Venus	27848-01-14 07:41 G	11892345.66	11892345.82	11892345.98	0.1764	0.0697
Mercury	27854-10-18 00:43 G	11894814.39	11894814.53	11894814.68	0.1807	0.0412
Mercury	27855-08-11 00:29 G	11895111.40	11895111.52	11895111.64	0.1734	0.0560
Mercury	27864-03-09 03:21 G	11898244.62	11898244.64	11898244.66	0.1798	0.1774
Mercury	27864-12-31 08:38 G	11898541.80	11898541.86	11898541.92	0.1742	0.1497
Mercury	27876-04-28 07:55 G	11902677.76	11902677.83	11902677.90	0.1719	0.1424
Mercury	27884-11-25 22:48 G	11905811.34	11905811.45	11905811.56	0.1815	0.1139
Mercury	27885-09-18 16:05 G	11906108.05	11906108.17	11906108.30	0.1726	0.0498
Mercury	27894-04-18 01:26 G	11909241.41	11909241.56	11909241.70	0.1807	0.0229
Mercury	27895-02-09 00:29 G	11909538.39	11909538.52	11909538.64	0.1734	0.0445
Mercury	27903-09-09 03:36 G	11912671.59	11912671.65	11912671.71	0.1798	0.1613
Mercury	27904-07-02 08:53 G	11912968.79	11912968.87	11912968.94	0.1742	0.1363
Venus	27907-05-28 16:33 G	11914029.02	11914029.19	11914029.37	0.1769	0.0056
Earth	27912-05-24 06:43 G	11915851.64	11915851.78	11915851.91	0.1592	0.1085
Moon	27912-05-24 11:17 G	11915851.86	11915851.97	11915852.08	0.1592	0.1313 *
Venus	27913-11-11 15:50 G	11916387.99	11916388.16	11916388.34	0.1768	0.0290
Mercury	27915-10-29 08:09 G	11917104.79	11917104.84	11917104.89	0.1719	0.1563
Earth	27920-11-19 19:12 G	11918953.20	11918953.30	11918953.40	0.1943	0.1703
Moon	27920-11-20 03:07 G	11918953.55	11918953.63	11918953.71	0.1943	0.1801
Mercury	27924-05-27 23:17 G	11920238.37	11920238.47	11920238.57	0.1816	0.1312
Mercury	27925-03-20 16:19 G	11920535.06	11920535.18	11920535.30	0.1726	0.0625
Mercury	27933-10-18 01:55 G	11923668.43	11923668.58	11923668.72	0.1807	0.0064

Mercury	27934-08-11 00:29 G	11923965.40	11923965.52	11923965.65	0.1734	0.0308
Mercury	27943-03-10 04:05 G	11927098.58	11927098.67	11927098.76	0.1798	0.1437
Mercury	27944-01-01 08:53 G	11927395.78	11927395.87	11927395.95	0.1741	0.1244
Mercury	27955-04-29 08:09 G	11931531.82	11931531.84	11931531.86	0.1719	0.1684
Mercury	27963-11-26 23:31 G	11934665.40	11934665.48	11934665.57	0.1816	0.1482
Mercury	27964-09-18 16:19 G	11934962.07	11934962.18	11934962.30	0.1726	0.0759
Venus	27973-03-25 00:29 G	11938071.35	11938071.52	11938071.69	0.1765	0.0386
Mercury	27973-04-18 02:09 G	11938095.44	11938095.59	11938095.73	0.1807	0.0117
Mercury	27974-02-09 00:43 G	11938392.40	11938392.53	11938392.65	0.1734	0.0176
Venus	27979-09-08 23:31 G	11940430.31	11940430.48	11940430.66	0.1773	0.0157
Mercury	27982-09-08 04:33 G	11941525.59	11941525.69	11941525.80	0.1799	0.1255
Mercury	27983-07-02 08:53 G	11941822.77	11941822.87	11941822.97	0.1741	0.1116

29TH MILLENNIUM CE

This is a list of transits visible from Mars in the 29th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	28003-05-28 00:00 G		11949092.44	11949092.50	11949092.56	0.1816	0.1646	
Mercury	28004-03-19 16:33 G		11949389.08	11949389.19	11949389.30	0.1726	0.0887	
Mercury	28012-10-17 02:38 G		11952522.47	11952522.61	11952522.75	0.1807	0.0292	
Mercury	28013-08-10 00:43 G		11952819.40	11952819.53	11952819.66	0.1733	0.0054	
Mercury	28022-03-09 04:48 G		11955952.59	11955952.70	11955952.82	0.1799	0.1101	
Mercury	28022-12-31 09:07 G		11956249.77	11956249.88	11956249.98	0.1741	0.0987	
Earth	28038-05-21 15:07 G		11961869.99	11961870.13	11961870.27	0.1597	0.1044	

Moon	28038-05-21 17:02 G	11961870.06	11961870.21	11961870.35	0.1597	0.0892 *
Venus	28039-01-20 08:53 G	11962113.72	11962113.87	11962114.03	0.1760	0.0792
Mercury	28043-09-18 16:33 G	11963816.09	11963816.19	11963816.30	0.1726	0.1017
Venus	28045-07-06 07:41 G	11964472.66	11964472.82	11964472.99	0.1777	0.0580
Mercury	28052-04-17 02:53 G	11966949.48	11966949.62	11966949.77	0.1807	0.0459
Mercury	28053-02-08 00:43 G	11967246.41	11967246.53	11967246.66	0.1733	0.0084
Mercury	28061-09-07 05:17 G	11970379.60	11970379.72	11970379.85	0.1799	0.0919
Mercury	28062-07-01 09:07 G	11970676.77	11970676.88	11970676.99	0.1741	0.0860
Mercury	28083-03-19 16:33 G	11978243.10	11978243.19	11978243.29	0.1726	0.1149
Mercury	28091-10-17 03:21 G	11981376.50	11981376.64	11981376.78	0.1808	0.0623
Mercury	28092-08-09 00:57 G	11981673.42	11981673.54	11981673.67	0.1733	0.0217
Mercury	28101-03-09 05:45 G	11984806.61	11984806.74	11984806.88	0.1799	0.0742
Mercury	28101-12-31 09:07 G	11985103.77	11985103.88	11985103.99	0.1741	0.0736
Venus	28104-11-17 16:48 G	11986156.08	11986156.20	11986156.32	0.1756	0.1211
Venus	28111-05-04 14:53 G	11988514.98	11988515.12	11988515.26	0.1782	0.1048
Mercury	28111-05-23 17:31 G	11988534.20	11988534.23	11988534.26	0.1749	0.1673
Moon	28117-05-24 11:02 G	11990726.79	11990726.96	11990727.14	0.1595	0.0166
Earth	28117-05-24 15:36 G	11990726.97	11990727.15	11990727.33	0.1595	0.0410 *
Mercury	28122-09-18 16:48 G	11992670.12	11992670.20	11992670.29	0.1725	0.1279
Mercury	28131-04-18 03:50 G	11995803.53	11995803.66	11995803.79	0.1808	0.0802
Mercury	28132-02-09 00:57 G	11996100.42	11996100.54	11996100.67	0.1733	0.0333
Venus	28136-11-17 00:00 G	11997843.39	11997843.50	11997843.61	0.1771	0.1392
Mercury	28140-09-07 06:14 G	11999233.62	11999233.76	11999233.89	0.1799	0.0586
Mercury	28141-07-01 09:21 G	11999530.77	11999530.89	11999531.01	0.1741	0.0598
Venus	28143-05-03 22:19 G	12000202.36	12000202.43	12000202.50	0.1767	0.1595
Mercury	28150-11-21 17:31 G	12002961.18	12002961.23	12002961.29	0.1748	0.1548
Mercury	28162-03-19 16:48 G	12007097.13	12007097.20	12007097.28	0.1725	0.1409
Venus	28170-09-15 01:41 G	12010198.50	12010198.57	12010198.64	0.1752	0.1595
Mercury	28170-10-17 04:19 G	12010230.55	12010230.68	12010230.80	0.1808	0.0973
Mercury	28171-08-10 01:12 G	12010527.42	12010527.55	12010527.67	0.1733	0.0470

Venus	28177-02-28 22:05 G	12012557.33	12012557.42	12012557.51	0.1786	0.1516
Mercury	28180-03-08 06:43 G	12013660.63	12013660.78	12013660.92	0.1799	0.0407
Mercury	28180-12-30 09:21 G	12013957.77	12013957.89	12013958.01	0.1740	0.0482
Mercury	28189-07-29 08:53 G	12017090.86	12017090.87	12017090.88	0.1791	0.1785
Mercury	28190-05-22 17:31 G	12017388.16	12017388.23	12017388.31	0.1748	0.1424
Mercury	28201-09-18 17:02 G	12021524.16	12021524.21	12021524.27	0.1725	0.1545
Venus	28202-09-15 07:55 G	12021885.69	12021885.83	12021885.98	0.1766	0.0957
Venus	28209-03-01 06:14 G	12024244.64	12024244.76	12024244.90	0.1771	0.1172
Mercury	28210-04-18 04:33 G	12024657.58	12024657.69	12024657.80	0.1808	0.1132
Mercury	28211-02-09 01:12 G	12024954.43	12024954.55	12024954.67	0.1733	0.0601
Mercury	28219-09-08 07:12 G	12028087.65	12028087.80	12028087.94	0.1800	0.0225
Mercury	28220-07-01 09:21 G	12028384.77	12028384.89	12028385.02	0.1740	0.0350
Mercury	28229-01-28 09:21 G	12031517.83	12031517.89	12031517.95	0.1791	0.1611
Mercury	28229-11-21 17:45 G	12031815.16	12031815.24	12031815.32	0.1748	0.1294
Mercury	28241-03-19 17:02 G	12035951.19	12035951.21	12035951.24	0.1725	0.1672
Mercury	28249-10-17 05:02 G	12039084.61	12039084.71	12039084.81	0.1808	0.1316
Mercury	28250-08-10 01:12 G	12039381.44	12039381.55	12039381.67	0.1733	0.0727
Mercury	28259-03-09 07:26 G	12042514.66	12042514.81	12042514.95	0.1800	0.0081
Mercury	28259-12-31 09:36 G	12042811.77	12042811.90	12042812.02	0.1740	0.0215
Venus	28268-07-12 15:50 G	12045927.99	12045928.16	12045928.32	0.1762	0.0515
Mercury	28268-07-29 09:50 G	12045944.82	12045944.91	12045944.99	0.1791	0.1440
Mercury	28269-05-22 17:45 G	12046242.15	12046242.24	12046242.34	0.1748	0.1167
Venus	28274-12-27 13:55 G	12048286.93	12048287.08	12048287.24	0.1776	0.0731
Moon	28283-11-25 09:07 G	12051541.77	12051541.88	12051541.99	0.1942	0.1697
Earth	28283-11-25 09:50 G	12051541.78	12051541.91	12051542.04	0.1942	0.1501 *
Mercury	28289-04-17 05:17 G	12053511.64	12053511.72	12053511.81	0.1809	0.1481
Mercury	28290-02-08 01:26 G	12053808.45	12053808.56	12053808.67	0.1732	0.0858
Mercury	28298-09-07 07:55 G	12056941.68	12056941.83	12056941.98	0.1800	0.0116
Mercury	28299-07-01 09:36 G	12057238.77	12057238.90	12057239.03	0.1740	0.0091
Mercury	28308-01-29 10:19 G	12060371.82	12060371.93	12060372.03	0.1791	0.1266

Mercury	28308-11-21 17:45 G	12060669.14	12060669.24	12060669.34	0.1748	0.1044
Earth	28322-05-25 22:19 G	12065602.25	12065602.43	12065602.61	0.1600	0.0325
Moon	28322-05-26 02:53 G	12065602.42	12065602.62	12065602.81	0.1600	0.0100 *
Mercury	28328-10-17 05:45 G	12067938.68	12067938.74	12067938.80	0.1809	0.1651
Mercury	28329-08-10 01:41 G	12068235.46	12068235.57	12068235.67	0.1732	0.0997
Venus	28334-05-11 00:00 G	12069970.32	12069970.50	12069970.67	0.1757	0.0108
Mercury	28338-03-09 08:24 G	12071368.70	12071368.85	12071368.99	0.1800	0.0291
Mercury	28338-12-31 09:36 G	12071665.78	12071665.90	12071666.03	0.1740	0.0048
Venus	28340-10-24 21:50 G	12072329.24	12072329.41	12072329.58	0.1780	0.0294
Mercury	28347-07-30 10:33 G	12074798.83	12074798.94	12074799.06	0.1792	0.1099
Mercury	28348-05-22 18:00 G	12075096.14	12075096.25	12075096.36	0.1748	0.0912
Mercury	28369-02-08 01:26 G	12082662.47	12082662.56	12082662.66	0.1732	0.1119
Mercury	28377-09-07 08:38 G	12085795.72	12085795.86	12085796.00	0.1800	0.0447
Mercury	28378-07-01 09:50 G	12086092.78	12086092.91	12086093.04	0.1740	0.0177
Mercury	28387-01-28 11:02 G	12089225.84	12089225.96	12089226.09	0.1792	0.0917
Mercury	28387-11-21 18:00 G	12089523.14	12089523.25	12089523.36	0.1747	0.0785
Mercury	28397-04-13 02:24 G	12092953.59	12092953.60	12092953.61	0.1755	0.1742
Venus	28400-03-07 08:09 G	12094012.67	12094012.84	12094013.01	0.1753	0.0320
Earth	28401-05-27 22:19 G	12094459.30	12094459.43	12094459.56	0.1598	0.1135
Moon	28401-05-28 03:36 G	12094459.51	12094459.65	12094459.79	0.1597	0.1008 *
Venus	28406-08-22 05:17 G	12096371.55	12096371.72	12096371.89	0.1784	0.0167
Mercury	28408-08-09 01:41 G	12097089.48	12097089.57	12097089.66	0.1732	0.1254
Mercury	28417-03-08 09:07 G	12100222.74	12100222.88	12100223.02	0.1801	0.0631
Mercury	28417-12-30 09:50 G	12100519.78	12100519.91	12100520.03	0.1739	0.0295
Mercury	28426-07-29 11:31 G	12103652.84	12103652.98	12103653.11	0.1792	0.0751
Mercury	28427-05-22 18:14 G	12103950.14	12103950.26	12103950.37	0.1747	0.0657
Mercury	28436-10-12 02:24 G	12107380.56	12107380.60	12107380.65	0.1755	0.1607
Mercury	28448-02-08 01:55 G	12111516.50	12111516.58	12111516.65	0.1732	0.1388
Mercury	28456-09-06 09:36 G	12114649.77	12114649.90	12114650.03	0.1801	0.0810
Mercury	28457-06-30 10:05 G	12114946.79	12114946.92	12114947.04	0.1739	0.0435

Venus	28466-01-02 16:48 G	12118055.04	12118055.20	12118055.36	0.1749	0.0715
Mercury	28466-01-27 12:00 G	12118079.86	12118080.00	12118080.14	0.1792	0.0576
Mercury	28466-11-20 18:14 G	12118377.14	12118377.26	12118377.38	0.1747	0.0526
Venus	28472-06-18 12:43 G	12120413.87	12120414.03	12120414.20	0.1789	0.0622
Mercury	28476-04-12 02:24 G	12121807.54	12121807.60	12121807.66	0.1755	0.1491
Mercury	28487-08-09 01:55 G	12125943.52	12125943.58	12125943.64	0.1732	0.1517
Mercury	28496-03-07 09:50 G	12129076.79	12129076.91	12129077.03	0.1801	0.0962
Mercury	28496-12-29 10:05 G	12129373.80	12129373.92	12129374.04	0.1739	0.0567
Mercury	28505-07-29 12:14 G	12132506.87	12132507.01	12132507.16	0.1793	0.0405
Mercury	28506-05-22 18:14 G	12132804.14	12132804.26	12132804.39	0.1747	0.0399
Mercury	28514-12-19 14:38 G	12135937.10	12135937.11	12135937.12	0.1784	0.1772
Mercury	28515-10-13 02:38 G	12136234.53	12136234.61	12136234.68	0.1755	0.1358
Mercury	28527-02-08 01:55 G	12140370.55	12140370.58	12140370.62	0.1731	0.1651
Moon	28527-05-26 00:00 G	12140477.40	12140477.50	12140477.60	0.1604	0.1311
Earth	28527-05-26 05:17 G	12140477.58	12140477.72	12140477.85	0.1604	0.1083 *
Venus	28531-11-01 01:12 G	12142097.42	12142097.55	12142097.68	0.1745	0.1115
Mercury	28535-09-07 10:19 G	12143503.82	12143503.93	12143504.05	0.1801	0.1151
Mercury	28536-06-30 10:05 G	12143800.81	12143800.92	12143801.04	0.1739	0.0693
Venus	28538-04-16 19:26 G	12144456.18	12144456.31	12144456.45	0.1794	0.1117
Mercury	28545-01-27 12:43 G	12146933.88	12146934.03	12146934.18	0.1792	0.0229
Mercury	28545-11-20 18:29 G	12147231.14	12147231.27	12147231.39	0.1747	0.0272
Mercury	28554-06-19 14:53 G	12150364.06	12150364.12	12150364.18	0.1784	0.1613
Mercury	28555-04-13 02:38 G	12150661.52	12150661.61	12150661.70	0.1755	0.1225
Venus	28563-10-31 07:12 G	12153784.70	12153784.80	12153784.90	0.1759	0.1430
Moon	28567-11-25 21:50 G	12155271.23	12155271.41	12155271.60	0.1936	0.0364
Earth	28567-11-26 04:33 G	12155271.48	12155271.69	12155271.89	0.1936	0.0148 *
Venus	28570-04-16 04:19 G	12156143.62	12156143.68	12156143.75	0.1779	0.1632
Mercury	28575-03-08 10:48 G	12157930.85	12157930.95	12157931.05	0.1801	0.1324
Mercury	28575-12-30 10:05 G	12158227.81	12158227.92	12158228.04	0.1739	0.0824
Mercury	28584-07-28 13:12 G	12161360.90	12161361.05	12161361.20	0.1793	0.0060

Mercury	28585-05-21 18:29 G	12161658.14	12161658.27	12161658.40	0.1747	0.0135
Mercury	28593-12-18 15:36 G	12164791.06	12164791.15	12164791.24	0.1784	0.1420
Mercury	28594-10-12 02:38 G	12165088.52	12165088.61	12165088.71	0.1755	0.1104
Venus	28597-08-28 10:19 G	12166139.85	12166139.93	12166140.02	0.1741	0.1484
Venus	28604-02-13 02:38 G	12168498.53	12168498.61	12168498.68	0.1798	0.1601
Moon	28606-05-28 23:17 G	12169334.29	12169334.47	12169334.65	0.1602	0.0536
Earth	28606-05-29 05:31 G	12169334.54	12169334.73	12169334.91	0.1602	0.0402 *
Mercury	28614-09-07 11:02 G	12172357.88	12172357.96	12172358.04	0.1802	0.1482
Mercury	28615-07-01 10:33 G	12172654.83	12172654.94	12172655.04	0.1739	0.0968
Mercury	28624-01-28 13:41 G	12175787.92	12175788.07	12175788.22	0.1793	0.0130
Mercury	28624-11-20 18:29 G	12176085.15	12176085.27	12176085.40	0.1746	0.0053
Venus	28629-08-28 15:21 G	12177827.00	12177827.14	12177827.29	0.1755	0.1012
Mercury	28633-06-19 15:50 G	12179218.06	12179218.16	12179218.27	0.1784	0.1255
Mercury	28634-04-13 02:53 G	12179515.51	12179515.62	12179515.72	0.1754	0.0974
Venus	28636-02-12 12:00 G	12180185.87	12180186.00	12180186.13	0.1783	0.1188
Mercury	28654-03-08 11:45 G	12186784.93	12186784.99	12186785.04	0.1802	0.1670
Mercury	28654-12-30 10:19 G	12187081.84	12187081.93	12187082.03	0.1738	0.1088
Mercury	28663-07-29 13:55 G	12190214.94	12190215.08	12190215.23	0.1793	0.0290
Mercury	28664-05-21 18:43 G	12190512.15	12190512.28	12190512.40	0.1746	0.0130
Mercury	28672-12-18 16:19 G	12193645.06	12193645.18	12193645.30	0.1785	0.1084
Mercury	28673-10-12 02:53 G	12193942.51	12193942.62	12193942.73	0.1754	0.0836
Mercury	28694-06-30 10:33 G	12201508.85	12201508.94	12201509.03	0.1738	0.1225
Venus	28695-06-25 23:45 G	12201869.32	12201869.49	12201869.65	0.1751	0.0588
Venus	28701-12-10 19:26 G	12204228.15	12204228.31	12204228.47	0.1788	0.0727
Mercury	28703-01-28 14:24 G	12204641.96	12204642.10	12204642.25	0.1793	0.0472
Mercury	28703-11-21 18:43 G	12204939.16	12204939.28	12204939.41	0.1746	0.0259
Mercury	28712-06-19 16:48 G	12208072.07	12208072.20	12208072.33	0.1785	0.0901
Mercury	28713-04-13 02:53 G	12208369.51	12208369.62	12208369.74	0.1754	0.0716
Mercury	28722-09-03 11:17 G	12211799.94	12211799.97	12211800.01	0.1762	0.1672
Mercury	28733-12-30 10:48 G	12215935.87	12215935.95	12215936.02	0.1738	0.1364

Mercury	28742-07-29 14:53 G	12219068.99	12219069.12	12219069.26	0.1794	0.0647
Mercury	28743-05-22 18:43 G	12219366.16	12219366.28	12219366.41	0.1746	0.0394
Mercury	28751-12-19 17:17 G	12222499.09	12222499.22	12222499.36	0.1785	0.0724
Mercury	28752-10-12 03:07 G	12222796.51	12222796.63	12222796.75	0.1754	0.0578
Venus	28761-04-23 08:24 G	12225911.67	12225911.85	12225912.02	0.1746	0.0195
Mercury	28762-03-04 11:17 G	12226226.92	12226226.97	12226227.03	0.1762	0.1552
Venus	28767-10-08 02:53 G	12228270.45	12228270.62	12228270.79	0.1792	0.0273
Mercury	28773-06-30 10:48 G	12230362.88	12230362.95	12230363.01	0.1738	0.1490
Mercury	28782-01-27 15:21 G	12233496.01	12233496.14	12233496.27	0.1794	0.0817
Mercury	28782-11-20 18:57 G	12233793.17	12233793.29	12233793.41	0.1746	0.0527
Mercury	28791-06-19 17:45 G	12236926.09	12236926.24	12236926.38	0.1785	0.0563
Mercury	28792-04-12 03:07 G	12237223.51	12237223.63	12237223.75	0.1753	0.0446
Mercury	28801-09-02 11:31 G	12240653.91	12240653.98	12240654.05	0.1761	0.1421
Earth	28811-05-29 11:45 G	12244209.81	12244209.99	12244210.18	0.1607	0.0369
Moon	28811-05-29 17:17 G	12244210.05	12244210.22	12244210.39	0.1607	0.0491 *
Mercury	28812-12-29 10:48 G	12244789.91	12244789.95	12244789.99	0.1738	0.1625
Mercury	28821-07-28 15:50 G	12247923.03	12247923.16	12247923.28	0.1794	0.0991
Mercury	28822-05-21 18:57 G	12248220.18	12248220.29	12248220.41	0.1745	0.0659
Venus	28827-02-18 17:02 G	12249954.04	12249954.21	12249954.38	0.1742	0.0211
Mercury	28830-12-18 18:14 G	12251353.12	12251353.26	12251353.41	0.1785	0.0369
Mercury	28831-10-12 03:07 G	12251650.51	12251650.63	12251650.76	0.1754	0.0324
Venus	28833-08-04 10:05 G	12252312.74	12252312.92	12252313.09	0.1796	0.0215
Mercury	28840-05-09 20:24 G	12254783.33	12254783.35	12254783.36	0.1777	0.1760
Mercury	28841-03-03 11:31 G	12255080.90	12255080.98	12255081.07	0.1761	0.1286
Earth	28851-11-27 02:24 G	12259001.49	12259001.60	12259001.71	0.1930	0.1612
Moon	28851-11-27 12:29 G	12259001.90	12259002.02	12259002.14	0.1930	0.1581
Mercury	28861-01-26 16:19 G	12262350.07	12262350.18	12262350.29	0.1794	0.1178
Mercury	28861-11-19 19:12 G	12262647.19	12262647.30	12262647.41	0.1745	0.0790
Mercury	28870-06-18 18:43 G	12265780.13	12265780.28	12265780.42	0.1785	0.0206
Mercury	28871-04-12 03:21 G	12266077.51	12266077.64	12266077.76	0.1753	0.0189

Mercury	28879-11-08 21:07 G	12269210.31	12269210.38	12269210.44	0.1777	0.1566
Mercury	28880-09-01 11:45 G	12269507.89	12269507.99	12269508.08	0.1761	0.1160
Moon	28890-05-31 11:17 G	12273066.88	12273066.97	12273067.07	0.1605	0.1326
Earth	28890-05-31 12:43 G	12273066.90	12273067.03	12273067.16	0.1605	0.1149 *
Venus	28892-12-16 01:55 G	12273996.42	12273996.58	12273996.75	0.1738	0.0588
Venus	28899-06-01 17:17 G	12276355.06	12276355.22	12276355.38	0.1801	0.0686
Mercury	28900-07-28 16:33 G	12276777.09	12276777.19	12276777.29	0.1794	0.1336
Mercury	28901-05-21 19:12 G	12277074.20	12277074.30	12277074.41	0.1745	0.0928
Mercury	28909-12-18 19:12 G	12280207.15	12280207.30	12280207.44	0.1786	0.0059
Mercury	28910-10-12 03:36 G	12280504.52	12280504.65	12280504.77	0.1753	0.0071
Mercury	28919-05-10 21:36 G	12283637.31	12283637.40	12283637.49	0.1777	0.1387
Mercury	28920-03-03 11:45 G	12283934.89	12283934.99	12283935.09	0.1761	0.1031
Mercury	28940-01-27 17:02 G	12291204.14	12291204.21	12291204.29	0.1795	0.1521
Mercury	28940-11-19 19:26 G	12291501.21	12291501.31	12291501.41	0.1745	0.1061
Mercury	28949-06-18 19:41 G	12294634.17	12294634.32	12294634.46	0.1786	0.0162
Mercury	28950-04-12 03:21 G	12294931.52	12294931.64	12294931.77	0.1753	0.0103
Venus	28958-10-14 11:02 G	12298038.81	12298038.96	12298039.10	0.1734	0.0967
Mercury	28958-11-08 21:50 G	12298064.30	12298064.41	12298064.52	0.1777	0.1223
Mercury	28959-09-02 12:00 G	12298361.89	12298362.00	12298362.10	0.1761	0.0889
Venus	28965-03-29 23:31 G	12300397.35	12300397.48	12300397.61	0.1806	0.1205
Mercury	28979-07-28 17:31 G	12305631.19	12305631.23	12305631.28	0.1795	0.1702
Mercury	28980-05-20 19:26 G	12305928.22	12305928.31	12305928.40	0.1745	0.1194
Mercury	28988-12-17 20:09 G	12309061.19	12309061.34	12309061.48	0.1786	0.0338
Mercury	28989-10-11 03:36 G	12309358.53	12309358.65	12309358.78	0.1753	0.0219
Venus	28990-10-13 15:50 G	12309726.08	12309726.16	12309726.24	0.1748	0.1524
Venus	28997-03-29 09:50 G	12312084.85	12312084.91	12312084.98	0.1791	0.1653
Mercury	28998-05-09 22:19 G	12312491.31	12312491.43	12312491.55	0.1778	0.1038
Mercury	28999-03-03 11:45 G	12312788.88	12312788.99	12312789.11	0.1761	0.0770

30TH MILLENNIUM CE

This is a list of transits visible from Mars in the 30th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	29008-07-24 20:09	G	12316219.33	12316219.34	12316219.36	0.1769	0.1742	
Moon	29016-05-29 12:14	G	12319084.86	12319085.01	12319085.16	0.1613	0.1049	
Earth	29016-05-29 17:31	G	12319085.10	12319085.23	12319085.36	0.1612	0.1176	*
Mercury	29019-11-20 19:41	G	12320355.24	12320355.32	12320355.40	0.1745	0.1336	
Venus	29024-08-11 20:38	G	12322081.25	12322081.36	12322081.47	0.1730	0.1320	
Mercury	29028-06-18 20:24	G	12323488.21	12323488.35	12323488.49	0.1787	0.0502	
Mercury	29029-04-12 03:50	G	12323785.53	12323785.66	12323785.78	0.1752	0.0355	
Venus	29031-01-26 06:29	G	12324439.71	12324439.77	12324439.82	0.1810	0.1708	
Mercury	29037-11-08 23:02	G	12326918.33	12326918.46	12326918.59	0.1778	0.0851	
Mercury	29038-09-02 12:00	G	12327215.88	12327216.00	12327216.12	0.1760	0.0632	
Mercury	29048-01-23 20:24	G	12330646.30	12330646.35	12330646.39	0.1768	0.1612	
Venus	29056-08-11 00:29	G	12333768.39	12333768.52	12333768.66	0.1744	0.1125	
Mercury	29059-05-21 19:41	G	12334782.25	12334782.32	12334782.39	0.1744	0.1466	
Venus	29063-01-25 17:17	G	12336127.09	12336127.22	12336127.35	0.1795	0.1191	
Mercury	29067-12-18 20:53	G	12337915.24	12337915.37	12337915.51	0.1787	0.0695	
Mercury	29068-10-11 03:50	G	12338212.54	12338212.66	12338212.78	0.1752	0.0483	
Mercury	29077-05-09 23:17	G	12341345.33	12341345.47	12341345.60	0.1778	0.0693	
Mercury	29078-03-03 12:14	G	12341642.89	12341643.01	12341643.13	0.1760	0.0493	
Mercury	29087-07-24 20:24	G	12345073.28	12345073.35	12345073.42	0.1768	0.1478	
Venus	29090-06-09 05:31	G	12346123.70	12346123.73	12346123.76	0.1726	0.1691	

Earth	29095-06-01 18:43 G	12347942.10	12347942.28	12347942.46	0.1610	0.0369
Moon	29095-06-01 19:55 G	12347942.13	12347942.33	12347942.53	0.1610	0.0177 *
Mercury	29098-11-19 19:41 G	12349209.28	12349209.32	12349209.37	0.1744	0.1601
Mercury	29107-06-19 21:21 G	12352342.26	12352342.39	12352342.52	0.1787	0.0862
Mercury	29108-04-12 03:50 G	12352639.55	12352639.66	12352639.78	0.1752	0.0621
Mercury	29116-11-09 00:00 G	12355772.35	12355772.50	12355772.64	0.1778	0.0499
Mercury	29117-09-02 12:14 G	12356069.89	12356070.01	12356070.13	0.1760	0.0366
Venus	29122-06-09 09:07 G	12357810.73	12357810.88	12357811.04	0.1740	0.0724
Mercury	29127-01-23 20:24 G	12359500.27	12359500.35	12359500.43	0.1768	0.1350
Venus	29128-11-23 00:14 G	12360169.35	12360169.51	12360169.67	0.1799	0.0707
Mercury	29138-05-21 19:55 G	12363636.33	12363636.33	12363636.33	0.1744	0.1744
Mercury	29146-12-18 21:50 G	12366769.29	12366769.41	12366769.53	0.1787	0.1042
Mercury	29147-10-12 04:05 G	12367066.56	12367066.67	12367066.78	0.1752	0.0762
Mercury	29156-05-10 00:14 G	12370199.37	12370199.51	12370199.66	0.1778	0.0323
Mercury	29157-03-03 12:14 G	12370496.89	12370497.01	12370497.13	0.1760	0.0233
Mercury	29165-09-30 02:38 G	12373629.57	12373629.61	12373629.64	0.1770	0.1697
Mercury	29166-07-24 20:38 G	12373927.27	12373927.36	12373927.45	0.1768	0.1215
Mercury	29186-06-18 22:19 G	12381196.32	12381196.43	12381196.54	0.1787	0.1220
Mercury	29187-04-12 04:05 G	12381493.56	12381493.67	12381493.78	0.1752	0.0888
Venus	29188-04-05 18:14 G	12381853.09	12381853.26	12381853.43	0.1736	0.0347
Venus	29194-09-20 07:26 G	12384211.64	12384211.81	12384211.99	0.1804	0.0236
Mercury	29195-11-09 00:43 G	12384626.38	12384626.53	12384626.68	0.1779	0.0156
Mercury	29196-09-01 12:29 G	12384923.89	12384924.02	12384924.15	0.1760	0.0088
Mercury	29205-03-31 03:07 G	12388056.55	12388056.63	12388056.70	0.1770	0.1515
Mercury	29206-01-22 20:38 G	12388354.26	12388354.36	12388354.46	0.1768	0.1085
Earth	29214-12-02 21:36 G	12391590.33	12391590.40	12391590.48	0.1928	0.1783
Mercury	29225-12-17 22:48 G	12395623.36	12395623.45	12395623.54	0.1787	0.1398
Mercury	29226-10-11 04:19 G	12395920.58	12395920.68	12395920.78	0.1752	0.1030
Mercury	29235-05-10 01:12 G	12399053.40	12399053.55	12399053.70	0.1779	0.0038
Mercury	29236-03-02 12:29 G	12399350.89	12399351.02	12399351.14	0.1760	0.0043

Mercury	29244-09-29 03:36 G	12402483.55	12402483.65	12402483.74	0.1770	0.1338
Mercury	29245-07-23 20:53 G	12402781.26	12402781.37	12402781.47	0.1768	0.0948
Venus	29254-02-01 03:21 G	12405895.47	12405895.64	12405895.82	0.1732	0.0042
Venus	29260-07-17 14:09 G	12408253.92	12408254.09	12408254.26	0.1808	0.0272
Mercury	29265-06-17 23:17 G	12410050.40	12410050.47	12410050.53	0.1788	0.1571
Mercury	29266-04-11 04:19 G	12410347.59	12410347.68	12410347.78	0.1751	0.1166
Mercury	29274-11-08 01:55 G	12413480.43	12413480.58	12413480.72	0.1779	0.0228
Mercury	29275-09-01 12:29 G	12413777.90	12413778.02	12413778.15	0.1759	0.0185
Mercury	29284-03-30 04:05 G	12416910.55	12416910.67	12416910.78	0.1771	0.1162
Mercury	29285-01-21 20:53 G	12417208.26	12417208.37	12417208.48	0.1767	0.0819
Moon	29300-06-01 23:02 G	12422817.29	12422817.46	12422817.63	0.1616	0.0277
Earth	29300-06-02 00:00 G	12422817.32	12422817.50	12422817.69	0.1616	0.0450 *
Mercury	29304-12-17 23:45 G	12424477.47	12424477.49	12424477.51	0.1788	0.1758
Mercury	29305-10-11 04:33 G	12424774.60	12424774.69	12424774.77	0.1751	0.1302
Mercury	29314-05-10 01:55 G	12427907.44	12427907.58	12427907.73	0.1779	0.0385
Mercury	29315-03-03 12:43 G	12428204.91	12428205.03	12428205.15	0.1759	0.0316
Venus	29319-11-30 12:43 G	12429937.86	12429938.03	12429938.20	0.1727	0.0401
Mercury	29323-09-30 04:33 G	12431337.57	12431337.69	12431337.81	0.1771	0.0972
Mercury	29324-07-23 20:53 G	12431635.26	12431635.37	12431635.49	0.1767	0.0683
Venus	29326-05-15 21:07 G	12432296.22	12432296.38	12432296.54	0.1813	0.0771
Mercury	29333-12-14 05:17 G	12435065.68	12435065.72	12435065.75	0.1775	0.1681
Mercury	29345-04-11 04:33 G	12439201.62	12439201.69	12439201.76	0.1751	0.1439
Mercury	29353-11-08 02:38 G	12442334.47	12442334.61	12442334.75	0.1780	0.0576
Mercury	29354-09-01 12:43 G	12442631.91	12442632.03	12442632.15	0.1759	0.0445
Mercury	29363-03-31 04:48 G	12445764.57	12445764.70	12445764.84	0.1771	0.0806
Mercury	29364-01-22 20:53 G	12446062.26	12446062.37	12446062.49	0.1767	0.0553
Mercury	29373-06-14 05:31 G	12449492.67	12449492.73	12449492.78	0.1775	0.1540
Moon	29379-06-04 19:26 G	12451674.15	12451674.31	12451674.47	0.1613	0.0843
Earth	29379-06-05 01:41 G	12451674.44	12451674.57	12451674.70	0.1613	0.1123 *
Mercury	29384-10-10 04:48 G	12453628.65	12453628.70	12453628.75	0.1751	0.1580

Venus	29385-09-26 22:05 G	12453980.26	12453980.42	12453980.57	0.1724	0.0768
Venus	29392-03-12 02:53 G	12456338.51	12456338.62	12456338.74	0.1818	0.1318
Mercury	29393-05-09 03:07 G	12456761.50	12456761.63	12456761.76	0.1780	0.0752
Mercury	29394-03-02 12:43 G	12457058.92	12457059.03	12457059.15	0.1759	0.0581
Mercury	29402-09-30 05:31 G	12460191.59	12460191.73	12460191.87	0.1771	0.0619
Mercury	29403-07-24 21:07 G	12460489.26	12460489.38	12460489.50	0.1767	0.0412
Mercury	29412-12-14 05:17 G	12463919.65	12463919.72	12463919.80	0.1775	0.1419
Venus	29417-09-27 01:41 G	12465667.53	12465667.57	12465667.62	0.1737	0.1674
Venus	29424-03-12 14:38 G	12468026.05	12468026.11	12468026.18	0.1803	0.1654
Mercury	29424-04-11 04:48 G	12468055.68	12468055.70	12468055.72	0.1751	0.1711
Mercury	29432-11-08 03:21 G	12471188.52	12471188.64	12471188.77	0.1780	0.0921
Mercury	29433-09-01 12:57 G	12471485.93	12471486.04	12471486.16	0.1759	0.0728
Mercury	29442-03-31 06:00 G	12474618.60	12474618.75	12474618.89	0.1772	0.0435
Mercury	29443-01-22 21:07 G	12474916.26	12474916.38	12474916.51	0.1766	0.0283
Venus	29451-07-26 07:55 G	12478022.70	12478022.83	12478022.96	0.1720	0.1111
Mercury	29452-06-14 05:31 G	12478346.64	12478346.73	12478346.81	0.1775	0.1278
Mercury	29472-05-09 04:05 G	12485615.55	12485615.67	12485615.78	0.1780	0.1109
Mercury	29473-03-02 12:57 G	12485912.93	12485913.04	12485913.15	0.1758	0.0851
Mercury	29481-09-29 06:14 G	12489045.62	12489045.76	12489045.91	0.1771	0.0269
Mercury	29482-07-23 21:21 G	12489343.26	12489343.39	12489343.51	0.1767	0.0142
Venus	29483-07-25 10:48 G	12489709.83	12489709.95	12489710.07	0.1733	0.1283
Venus	29490-01-07 21:50 G	12492068.28	12492068.41	12492068.54	0.1807	0.1167
Mercury	29491-02-19 08:38 G	12492475.81	12492475.86	12492475.91	0.1763	0.1637
Mercury	29491-12-14 05:31 G	12492773.64	12492773.73	12492773.83	0.1774	0.1146
Moon	29498-12-03 13:26 G	12495319.87	12495320.06	12495320.26	0.1921	0.0389
Earth	29498-12-03 23:02 G	12495320.26	12495320.46	12495320.66	0.1921	0.0461 *
Earth	29505-06-03 04:48 G	12497692.59	12497692.70	12497692.81	0.1622	0.1306
Moon	29505-06-03 07:12 G	12497692.71	12497692.80	12497692.88	0.1622	0.1457 *
Mercury	29511-11-09 04:33 G	12500042.59	12500042.69	12500042.79	0.1780	0.1291
Mercury	29512-09-01 13:12 G	12500339.95	12500340.05	12500340.15	0.1758	0.0992

Venus	29517-05-23 17:17 G	12502065.13	12502065.22	12502065.30	0.1716	0.1468
Mercury	29521-03-31 06:57 G	12503472.64	12503472.79	12503472.94	0.1772	0.0096
Mercury	29522-01-22 21:21 G	12503770.26	12503770.39	12503770.51	0.1766	0.0014
Mercury	29530-08-21 09:07 G	12506902.80	12506902.88	12506902.97	0.1763	0.1449
Mercury	29531-06-15 05:31 G	12507200.63	12507200.73	12507200.84	0.1774	0.1017
Venus	29549-05-22 19:41 G	12513752.18	12513752.32	12513752.47	0.1729	0.0900
Mercury	29551-05-10 04:48 G	12514469.62	12514469.70	12514469.78	0.1781	0.1451
Mercury	29552-03-02 13:12 G	12514766.96	12514767.05	12514767.15	0.1758	0.1136
Venus	29555-11-06 04:05 G	12516110.51	12516110.67	12516110.83	0.1811	0.0652
Mercury	29560-09-29 07:26 G	12517899.66	12517899.81	12517899.96	0.1772	0.0105
Mercury	29561-07-23 21:21 G	12518197.27	12518197.39	12518197.52	0.1766	0.0135
Mercury	29570-02-19 09:36 G	12521329.80	12521329.90	12521330.00	0.1763	0.1271
Mercury	29570-12-14 05:45 G	12521627.63	12521627.74	12521627.85	0.1774	0.0880
Earth	29584-06-05 06:00 G	12526549.56	12526549.75	12526549.94	0.1619	0.0279
Moon	29584-06-05 12:43 G	12526549.85	12526550.03	12526550.21	0.1619	0.0584 *
Mercury	29590-11-08 05:31 G	12528896.67	12528896.73	12528896.78	0.1781	0.1647
Mercury	29591-09-01 13:12 G	12529193.97	12529194.05	12529194.14	0.1758	0.1264
Mercury	29600-03-30 07:41 G	12532326.67	12532326.82	12532326.97	0.1772	0.0271
Mercury	29601-01-21 21:36 G	12532624.27	12532624.40	12532624.52	0.1766	0.0265
Mercury	29609-08-20 10:05 G	12535756.80	12535756.92	12535757.04	0.1764	0.1096
Mercury	29610-06-14 05:45 G	12536054.63	12536054.74	12536054.86	0.1774	0.0743
Venus	29615-03-20 05:17 G	12537794.56	12537794.72	12537794.89	0.1725	0.0536
Mercury	29619-11-04 14:09 G	12539485.07	12539485.09	12539485.10	0.1782	0.1760
Venus	29621-09-02 11:02 G	12540152.79	12540152.96	12540153.14	0.1816	0.0161
Mercury	29631-03-02 13:26 G	12543620.98	12543621.06	12543621.13	0.1758	0.1400
Mercury	29639-09-29 08:24 G	12546753.70	12546753.85	12546753.99	0.1773	0.0461
Mercury	29640-07-22 21:36 G	12547051.28	12547051.40	12547051.52	0.1766	0.0400
Mercury	29649-02-18 10:33 G	12550183.81	12550183.94	12550184.07	0.1764	0.0910
Mercury	29649-12-13 05:45 G	12550481.63	12550481.74	12550481.86	0.1774	0.0617
Mercury	29659-05-05 14:09 G	12553912.04	12553912.09	12553912.14	0.1782	0.1620

Mercury	29670-08-31 13:41 G	12558048.01	12558048.07	12558048.13	0.1757	0.1549
Mercury	29679-03-30 08:53 G	12561180.73	12561180.87	12561181.01	0.1773	0.0642
Mercury	29680-01-21 21:36 G	12561478.28	12561478.40	12561478.52	0.1765	0.0533
Venus	29681-01-14 14:24 G	12561836.93	12561837.10	12561837.28	0.1721	0.0163
Venus	29687-06-30 17:02 G	12564195.04	12564195.21	12564195.39	0.1820	0.0387
Mercury	29688-08-19 11:02 G	12564610.82	12564610.96	12564611.10	0.1764	0.0735
Mercury	29689-06-13 06:00 G	12564908.63	12564908.75	12564908.87	0.1774	0.0475
Mercury	29698-11-03 14:09 G	12568339.03	12568339.09	12568339.16	0.1782	0.1496
Mercury	29710-03-02 13:26 G	12572475.03	12572475.06	12572475.10	0.1757	0.1675
Mercury	29718-09-29 09:07 G	12575607.75	12575607.88	12575608.01	0.1773	0.0808
Mercury	29719-07-23 21:50 G	12575905.30	12575905.41	12575905.53	0.1765	0.0676
Mercury	29728-02-19 11:31 G	12579037.84	12579037.98	12579038.12	0.1765	0.0557
Mercury	29728-12-13 06:00 G	12579335.63	12579335.75	12579335.87	0.1773	0.0342
Mercury	29738-05-05 14:09 G	12582766.02	12582766.09	12582766.17	0.1782	0.1362
Venus	29746-11-13 00:14 G	12585879.34	12585879.51	12585879.68	0.1717	0.0190
Venus	29753-04-27 23:31 G	12588237.33	12588237.48	12588237.63	0.1825	0.0921
Mercury	29758-03-30 09:36 G	12590034.78	12590034.90	12590035.02	0.1773	0.0991
Mercury	29759-01-21 21:50 G	12590332.30	12590332.41	12590332.52	0.1765	0.0803
Mercury	29767-08-20 12:00 G	12593464.85	12593465.00	12593465.15	0.1764	0.0373
Mercury	29768-06-13 06:00 G	12593762.63	12593762.75	12593762.88	0.1773	0.0217
Mercury	29777-01-09 14:09 G	12596895.08	12596895.09	12596895.09	0.1756	0.1753
Mercury	29777-11-03 14:24 G	12597193.01	12597193.10	12597193.19	0.1781	0.1218
Earth	29782-12-05 01:12 G	12599050.37	12599050.55	12599050.74	0.1913	0.0778
Moon	29782-12-05 10:05 G	12599050.74	12599050.92	12599051.10	0.1914	0.0579 *
Moon	29789-06-05 03:36 G	12601424.49	12601424.65	12601424.80	0.1626	0.0899
Earth	29789-06-05 09:36 G	12601424.73	12601424.90	12601425.08	0.1626	0.0615 *
Mercury	29797-09-28 10:05 G	12604461.81	12604461.92	12604462.03	0.1773	0.1180
Mercury	29798-07-22 22:05 G	12604759.31	12604759.42	12604759.52	0.1765	0.0946
Mercury	29807-02-19 12:29 G	12607891.87	12607892.02	12607892.17	0.1765	0.0196
Mercury	29807-12-14 06:14 G	12608189.63	12608189.76	12608189.88	0.1773	0.0081

Venus	29812-09-10 09:50 G	12609921.74	12609921.91	12609922.07	0.1713	0.0548
Mercury	29816-07-11 14:38 G	12611322.04	12611322.11	12611322.18	0.1756	0.1564
Mercury	29817-05-05 14:24 G	12611620.00	12611620.10	12611620.19	0.1781	0.1098
Venus	29819-02-24 05:02 G	12612279.61	12612279.71	12612279.81	0.1830	0.1488
Mercury	29837-03-30 10:33 G	12618888.84	12618888.94	12618889.03	0.1773	0.1342
Mercury	29838-01-21 22:05 G	12619186.32	12619186.42	12619186.52	0.1765	0.1085
Mercury	29846-08-20 12:57 G	12622318.89	12622319.04	12622319.19	0.1765	0.0049
Mercury	29847-06-14 06:14 G	12622616.64	12622616.76	12622616.89	0.1773	0.0077
Venus	29851-02-23 18:00 G	12623967.18	12623967.25	12623967.34	0.1815	0.1598
Mercury	29856-01-10 15:07 G	12625749.04	12625749.13	12625749.23	0.1757	0.1379
Mercury	29856-11-03 14:24 G	12626047.00	12626047.10	12626047.20	0.1781	0.0960
Moon	29868-06-08 08:38 G	12630281.72	12630281.86	12630282.00	0.1623	0.1135
Earth	29868-06-08 11:31 G	12630281.83	12630281.98	12630282.12	0.1623	0.1005 *
Mercury	29876-09-28 11:02 G	12633315.89	12633315.96	12633316.03	0.1774	0.1529
Mercury	29877-07-22 22:05 G	12633613.33	12633613.42	12633613.51	0.1764	0.1218
Venus	29878-07-08 19:41 G	12633964.17	12633964.32	12633964.47	0.1710	0.0888
Mercury	29886-02-18 13:26 G	12636745.91	12636746.06	12636746.21	0.1765	0.0168
Mercury	29886-12-13 06:14 G	12637043.64	12637043.76	12637043.89	0.1773	0.0197
Mercury	29895-07-11 15:21 G	12640176.04	12640176.14	12640176.25	0.1757	0.1219
Mercury	29896-05-04 14:38 G	12640474.00	12640474.11	12640474.22	0.1781	0.0819
Venus	29910-07-08 21:21 G	12645651.30	12645651.39	12645651.48	0.1722	0.1460
Mercury	29916-03-30 11:31 G	12647742.94	12647742.98	12647743.01	0.1774	0.1711
Venus	29916-12-22 00:29 G	12648009.38	12648009.52	12648009.66	0.1819	0.1077
Mercury	29917-01-21 22:05 G	12648040.35	12648040.42	12648040.50	0.1764	0.1352
Mercury	29925-08-20 13:41 G	12651172.93	12651173.07	12651173.22	0.1765	0.0341
Mercury	29926-06-14 06:29 G	12651470.64	12651470.77	12651470.89	0.1773	0.0340
Mercury	29935-01-10 16:05 G	12654603.05	12654603.17	12654603.30	0.1757	0.1019
Mercury	29935-11-04 14:38 G	12654900.99	12654901.11	12654901.22	0.1781	0.0695
Venus	29944-05-06 05:17 G	12658006.60	12658006.72	12658006.84	0.1706	0.1232
Mercury	29945-03-26 22:48 G	12658331.42	12658331.45	12658331.49	0.1789	0.1715

Mercury	29956-07-22 22:19 G	12662467.37	12662467.43	12662467.50	0.1764	0.1500
Mercury	29965-02-18 14:09 G	12665599.95	12665600.09	12665600.24	0.1766	0.0525
Mercury	29965-12-13 06:29 G	12665897.65	12665897.77	12665897.89	0.1772	0.0473
Mercury	29974-07-11 16:33 G	12669030.06	12669030.19	12669030.32	0.1757	0.0843
Mercury	29975-05-05 14:38 G	12669327.99	12669328.11	12669328.23	0.1781	0.0558
Venus	29976-05-05 06:43 G	12669693.65	12669693.78	12669693.91	0.1719	0.1092
Venus	29982-10-19 06:14 G	12672051.60	12672051.76	12672051.93	0.1824	0.0530
Mercury	29984-09-24 23:02 G	12672758.40	12672758.46	12672758.51	0.1789	0.1582
Earth	29994-06-06 10:48 G	12676299.91	12676299.95	12676299.98	0.1633	0.1598
Moon	29994-06-06 17:17 G	12676300.11	12676300.22	12676300.34	0.1633	0.1291
Mercury	29996-01-21 22:19 G	12676894.39	12676894.43	12676894.48	0.1764	0.1627

31ST MILLENNIUM CE

This is a list of transits visible from Mars in the 31st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	30004-08-19 14:38 G	12680026.97	12680027.11	12680027.25	0.1766	0.0699		
Mercury	30005-06-13 06:29 G	12680324.65	12680324.77	12680324.89	0.1772	0.0608		
Venus	30010-03-03 15:36 G	12682049.09	12682049.15	12682049.22	0.1702	0.1552		
Mercury	30014-01-09 17:02 G	12683457.07	12683457.21	12683457.35	0.1757	0.0676		
Mercury	30014-11-03 14:53 G	12683755.00	12683755.12	12683755.24	0.1780	0.0416		
Mercury	30024-03-25 23:02 G	12687185.39	12687185.46	12687185.53	0.1788	0.1453		
Venus	30042-03-02 16:33 G	12693736.03	12693736.19	12693736.35	0.1715	0.0736		
Mercury	30044-02-18 15:07 G	12694454.00	12694454.13	12694454.26	0.1766	0.0877		

Mercury	30044-12-12 06:29 G	12694751.66	12694751.77	12694751.89	0.1772	0.0748
Venus	30048-08-15 12:43 G	12696093.86	12696094.03	12696094.21	0.1828	0.0047
Mercury	30053-07-10 17:31 G	12697884.08	12697884.23	12697884.37	0.1758	0.0485
Mercury	30054-05-04 14:38 G	12698181.99	12698182.11	12698182.23	0.1780	0.0293
Mercury	30063-09-24 23:02 G	12701612.38	12701612.46	12701612.55	0.1788	0.1310
Earth	30066-12-06 05:31 G	12702780.72	12702780.73	12702780.75	0.1905	0.1894
Earth	30073-06-08 13:26 G	12705156.87	12705157.06	12705157.25	0.1630	0.0070
Moon	30073-06-08 16:48 G	12705157.02	12705157.20	12705157.37	0.1630	0.0089 *
Mercury	30083-08-19 15:36 G	12708881.03	12708881.15	12708881.27	0.1766	0.1055
Mercury	30084-06-12 06:43 G	12709178.67	12709178.78	12709178.89	0.1772	0.0883
Mercury	30093-01-08 18:00 G	12712311.10	12712311.25	12712311.40	0.1758	0.0300
Mercury	30093-11-02 14:53 G	12712608.99	12712609.12	12712609.24	0.1780	0.0152
Mercury	30102-06-01 20:09 G	12715741.30	12715741.34	12715741.38	0.1749	0.1674
Mercury	30103-03-26 23:02 G	12716039.37	12716039.46	12716039.55	0.1788	0.1183
Venus	30107-12-30 01:55 G	12717778.41	12717778.58	12717778.75	0.1711	0.0371
Venus	30114-06-13 18:14 G	12720136.09	12720136.26	12720136.43	0.1833	0.0573
Mercury	30123-02-18 16:05 G	12723308.06	12723308.17	12723308.27	0.1766	0.1236
Mercury	30123-12-13 06:43 G	12723605.68	12723605.78	12723605.88	0.1772	0.1017
Mercury	30132-07-10 18:14 G	12726738.11	12726738.26	12726738.41	0.1758	0.0141
Mercury	30133-05-04 14:53 G	12727036.00	12727036.12	12727036.25	0.1780	0.0048
Mercury	30141-11-30 20:38 G	12730168.29	12730168.36	12730168.44	0.1750	0.1485
Mercury	30142-09-24 23:02 G	12730466.37	12730466.46	12730466.56	0.1788	0.1050
Mercury	30162-08-19 16:33 G	12737735.10	12737735.19	12737735.27	0.1766	0.1411
Mercury	30163-06-13 06:43 G	12738032.69	12738032.78	12738032.88	0.1772	0.1160
Mercury	30172-01-09 18:57 G	12741165.14	12741165.29	12741165.44	0.1758	0.0061
Mercury	30172-11-02 14:53 G	12741463.00	12741463.12	12741463.25	0.1780	0.0120
Venus	30173-10-26 12:00 G	12741820.82	12741821.00	12741821.17	0.1707	0.0039
Venus	30180-04-10 00:00 G	12744178.37	12744178.50	12744178.64	0.1837	0.1142
Mercury	30181-05-31 20:53 G	12744595.28	12744595.37	12744595.47	0.1750	0.1322
Mercury	30182-03-25 23:17 G	12744893.36	12744893.47	12744893.57	0.1788	0.0910

Mercury	30202-02-18 17:02 G	12752162.15	12752162.21	12752162.27	0.1767	0.1597
Mercury	30202-12-13 06:57 G	12752459.70	12752459.79	12752459.87	0.1771	0.1295
Mercury	30211-07-11 19:26 G	12755592.16	12755592.31	12755592.46	0.1758	0.0237
Mercury	30212-05-04 15:07 G	12755890.00	12755890.13	12755890.25	0.1780	0.0266
Mercury	30220-11-30 21:36 G	12759022.29	12759022.40	12759022.52	0.1750	0.1130
Mercury	30221-09-24 23:17 G	12759320.36	12759320.47	12759320.58	0.1788	0.0777
Venus	30239-08-24 21:36 G	12765863.23	12765863.40	12765863.57	0.1703	0.0316
Mercury	30242-06-13 06:57 G	12766886.72	12766886.79	12766886.86	0.1771	0.1433
Venus	30246-02-06 05:17 G	12768220.66	12768220.72	12768220.77	0.1842	0.1743
Mercury	30251-01-09 19:41 G	12770019.18	12770019.32	12770019.47	0.1759	0.0406
Mercury	30251-11-03 15:07 G	12770317.01	12770317.13	12770317.25	0.1779	0.0404
Mercury	30260-05-31 22:05 G	12773449.30	12773449.42	12773449.55	0.1750	0.0945
Mercury	30261-03-25 23:17 G	12773747.36	12773747.47	12773747.59	0.1787	0.0645
Mercury	30270-08-16 07:41 G	12777177.78	12777177.82	12777177.86	0.1796	0.1680
Venus	30278-02-05 19:41 G	12779908.22	12779908.32	12779908.42	0.1827	0.1466
Moon	30278-06-09 10:05 G	12780031.75	12780031.92	12780032.09	0.1638	0.0821
Earth	30278-06-09 13:55 G	12780031.92	12780032.08	12780032.23	0.1638	0.0938 *
Mercury	30281-12-12 06:57 G	12781313.74	12781313.79	12781313.85	0.1771	0.1571
Mercury	30290-07-10 20:24 G	12784446.20	12784446.35	12784446.49	0.1759	0.0599
Mercury	30291-05-04 15:07 G	12784744.01	12784744.13	12784744.25	0.1779	0.0528
Mercury	30299-11-30 22:33 G	12787876.30	12787876.44	12787876.57	0.1750	0.0775
Mercury	30300-09-24 23:31 G	12788174.36	12788174.48	12788174.60	0.1787	0.0501
Venus	30305-06-22 07:41 G	12789905.66	12789905.82	12789905.98	0.1700	0.0646
Mercury	30310-02-15 07:41 G	12791604.76	12791604.82	12791604.88	0.1795	0.1547
Mercury	30321-06-13 07:12 G	12795740.77	12795740.80	12795740.82	0.1771	0.1711
Mercury	30330-01-09 20:53 G	12798873.23	12798873.37	12798873.50	0.1759	0.0780
Mercury	30330-11-03 15:07 G	12799171.02	12799171.13	12799171.25	0.1779	0.0675
Venus	30337-06-21 08:38 G	12801592.82	12801592.86	12801592.90	0.1712	0.1662
Mercury	30339-06-01 23:02 G	12802303.32	12802303.46	12802303.60	0.1751	0.0591
Mercury	30340-03-25 23:31 G	12802601.36	12802601.48	12802601.60	0.1787	0.0377

Venus	30343-12-05 01:26 G	12803950.41	12803950.56	12803950.71	0.1831	0.0915
Mercury	30349-08-16 07:41 G	12806031.75	12806031.82	12806031.89	0.1795	0.1416
Earth	30357-06-12 16:48 G	12808889.03	12808889.20	12808889.37	0.1634	0.0754
Moon	30357-06-12 21:36 G	12808889.22	12808889.40	12808889.58	0.1634	0.0648 *
Mercury	30369-07-10 21:07 G	12813300.25	12813300.38	12813300.50	0.1759	0.0943
Mercury	30370-05-04 15:21 G	12813598.03	12813598.14	12813598.25	0.1779	0.0814
Venus	30371-04-19 17:45 G	12813948.10	12813948.24	12813948.38	0.1696	0.0975
Mercury	30378-11-30 23:31 G	12816730.34	12816730.48	12816730.63	0.1751	0.0400
Mercury	30379-09-24 23:31 G	12817028.36	12817028.48	12817028.60	0.1787	0.0236
Mercury	30389-02-14 07:41 G	12820458.74	12820458.82	12820458.91	0.1795	0.1279
Venus	30403-04-18 18:14 G	12825635.16	12825635.26	12825635.38	0.1709	0.1308
Mercury	30409-01-08 21:36 G	12827727.29	12827727.40	12827727.52	0.1759	0.1142
Venus	30409-10-01 06:57 G	12827992.62	12827992.79	12827992.96	0.1836	0.0342
Mercury	30409-11-02 15:21 G	12828025.03	12828025.14	12828025.24	0.1779	0.0943
Mercury	30418-05-31 23:45 G	12831157.34	12831157.49	12831157.64	0.1751	0.0240
Mercury	30419-03-25 23:31 G	12831455.36	12831455.48	12831455.61	0.1787	0.0103
Mercury	30427-10-22 02:09 G	12834587.53	12834587.59	12834587.65	0.1743	0.1589
Mercury	30428-08-15 07:55 G	12834885.73	12834885.83	12834885.92	0.1795	0.1138
Moon	30429-12-11 14:09 G	12835368.95	12835369.09	12835369.24	0.1902	0.1360
Earth	30429-12-11 23:02 G	12835369.31	12835369.46	12835369.60	0.1903	0.1300
Venus	30437-02-14 04:19 G	12837990.57	12837990.68	12837990.80	0.1693	0.1288
Mercury	30448-07-09 22:05 G	12842154.32	12842154.42	12842154.52	0.1759	0.1314
Mercury	30449-05-03 15:21 G	12842452.04	12842452.14	12842452.24	0.1779	0.1085
Mercury	30457-11-30 00:29 G	12845584.37	12845584.52	12845584.67	0.1751	0.0042
Mercury	30458-09-23 23:45 G	12845882.36	12845882.49	12845882.61	0.1786	0.0078
Mercury	30467-04-22 02:38 G	12849014.52	12849014.61	12849014.70	0.1743	0.1406
Mercury	30468-02-14 07:41 G	12849312.72	12849312.82	12849312.93	0.1795	0.1013
Venus	30469-02-13 04:19 G	12849677.54	12849677.68	12849677.83	0.1705	0.0964
Venus	30475-07-29 12:57 G	12852034.87	12852035.04	12852035.22	0.1840	0.0221
Mercury	30488-01-08 22:33 G	12856581.36	12856581.44	12856581.52	0.1760	0.1491

Mercury	30488-11-01 15:36 G	12856879.06	12856879.15	12856879.24	0.1778	0.1234
Mercury	30497-05-31 00:57 G	12860011.39	12860011.54	12860011.69	0.1751	0.0145
Mercury	30498-03-24 23:45 G	12860309.36	12860309.49	12860309.61	0.1786	0.0187
Venus	30502-12-13 14:38 G	12862033.06	12862033.11	12862033.16	0.1689	0.1607
Mercury	30506-10-22 03:07 G	12863441.53	12863441.63	12863441.74	0.1743	0.1225
Mercury	30507-08-16 07:55 G	12863739.72	12863739.83	12863739.94	0.1795	0.0867
Mercury	30527-07-10 23:02 G	12871008.42	12871008.46	12871008.50	0.1760	0.1680
Mercury	30528-05-03 15:36 G	12871306.07	12871306.15	12871306.23	0.1778	0.1361
Venus	30534-12-12 14:09 G	12873719.92	12873720.09	12873720.25	0.1701	0.0613
Mercury	30536-11-30 01:26 G	12874438.41	12874438.56	12874438.70	0.1751	0.0317
Mercury	30537-09-23 23:45 G	12874736.37	12874736.49	12874736.61	0.1786	0.0329
Venus	30541-05-26 18:00 G	12876077.10	12876077.25	12876077.41	0.1845	0.0820
Mercury	30546-04-22 03:36 G	12877868.53	12877868.65	12877868.77	0.1744	0.1045
Mercury	30547-02-14 07:55 G	12878166.72	12878166.83	12878166.94	0.1794	0.0734
Mercury	30556-07-06 16:19 G	12881597.17	12881597.18	12881597.19	0.1803	0.1787
Moon	30562-06-12 12:57 G	12883763.86	12883764.04	12883764.22	0.1642	0.0163
Earth	30562-06-12 17:02 G	12883764.02	12883764.21	12883764.40	0.1642	0.0263 *
Mercury	30567-11-02 15:36 G	12885733.09	12885733.15	12885733.22	0.1778	0.1508
Mercury	30576-05-31 01:55 G	12888865.43	12888865.58	12888865.72	0.1752	0.0501
Mercury	30577-03-24 23:45 G	12889163.37	12889163.49	12889163.61	0.1786	0.0452
Mercury	30585-10-21 04:05 G	12892295.54	12892295.67	12892295.81	0.1743	0.0857
Mercury	30586-08-15 07:55 G	12892593.72	12892593.83	12892593.95	0.1794	0.0599
Mercury	30596-01-05 16:19 G	12896024.14	12896024.18	12896024.23	0.1802	0.1646
Venus	30600-10-10 00:29 G	12897762.35	12897762.52	12897762.69	0.1698	0.0287
Venus	30607-03-24 23:31 G	12900119.37	12900119.48	12900119.59	0.1849	0.1418
Mercury	30607-05-04 15:50 G	12900160.11	12900160.16	12900160.20	0.1778	0.1650
Mercury	30615-12-01 02:24 G	12903292.46	12903292.60	12903292.74	0.1752	0.0695
Mercury	30616-09-23 23:45 G	12903590.38	12903590.49	12903590.61	0.1786	0.0599
Mercury	30625-04-22 04:33 G	12906722.55	12906722.69	12906722.83	0.1744	0.0679
Mercury	30626-02-14 08:09 G	12907020.72	12907020.84	12907020.96	0.1794	0.0459

Mercury	30635-07-07 16:19 G	12910451.12	12910451.18	12910451.24	0.1802	0.1519
Moon	30641-06-15 13:12 G	12912620.94	12912621.05	12912621.17	0.1639	0.1297
Earth	30641-06-15 19:55 G	12912621.24	12912621.33	12912621.41	0.1639	0.1448
Mercury	30655-06-01 02:38 G	12917719.48	12917719.61	12917719.75	0.1752	0.0858
Mercury	30656-03-25 00:00 G	12918017.39	12918017.50	12918017.61	0.1786	0.0742
Mercury	30664-10-21 05:17 G	12921149.57	12921149.72	12921149.86	0.1744	0.0492
Mercury	30665-08-15 08:09 G	12921447.72	12921447.84	12921447.96	0.1794	0.0317
Venus	30666-08-07 10:33 G	12921804.77	12921804.94	12921805.11	0.1694	0.0049
Mercury	30675-01-05 16:19 G	12924878.11	12924878.18	12924878.26	0.1802	0.1383
Mercury	30694-11-30 03:21 G	12932146.52	12932146.64	12932146.76	0.1752	0.1054
Mercury	30695-09-24 00:00 G	12932444.39	12932444.50	12932444.61	0.1785	0.0875
Mercury	30704-04-22 05:45 G	12935576.59	12935576.74	12935576.89	0.1744	0.0314
Venus	30705-01-19 20:24 G	12935849.23	12935849.35	12935849.47	0.1839	0.1298
Mercury	30705-02-14 08:09 G	12935874.72	12935874.84	12935874.96	0.1794	0.0185
Mercury	30713-09-12 07:41 G	12939006.79	12939006.82	12939006.86	0.1736	0.1679
Earth	30713-12-14 06:43 G	12939099.58	12939099.78	12939099.97	0.1894	0.0319
Moon	30713-12-14 10:48 G	12939099.77	12939099.95	12939100.12	0.1895	0.0617 *
Mercury	30714-07-07 16:33 G	12939305.10	12939305.19	12939305.28	0.1802	0.1232
Venus	30732-06-04 20:53 G	12945847.20	12945847.37	12945847.54	0.1690	0.0366
Mercury	30734-06-01 03:50 G	12946573.56	12946573.66	12946573.77	0.1753	0.1238
Mercury	30735-03-26 00:00 G	12946871.40	12946871.50	12946871.60	0.1785	0.1013
Mercury	30743-10-22 06:14 G	12950003.61	12950003.76	12950003.91	0.1744	0.0127
Mercury	30744-08-15 08:24 G	12950301.72	12950301.85	12950301.97	0.1793	0.0061
Mercury	30753-03-13 08:24 G	12953433.77	12953433.85	12953433.93	0.1736	0.1481
Mercury	30754-01-05 16:33 G	12953732.09	12953732.19	12953732.28	0.1802	0.1110
Earth	30767-06-13 14:53 G	12958639.02	12958639.12	12958639.22	0.1651	0.1398
Moon	30767-06-13 18:29 G	12958639.19	12958639.27	12958639.36	0.1651	0.1492 *
Venus	30770-11-17 01:41 G	12959891.41	12959891.57	12959891.74	0.1843	0.0717
Mercury	30773-11-30 04:05 G	12961000.59	12961000.67	12961000.76	0.1753	0.1409
Mercury	30774-09-24 00:14 G	12961298.42	12961298.51	12961298.60	0.1785	0.1166

Mercury	30783-04-22 06:43 G	12964430.63	12964430.78	12964430.93	0.1745	0.0063
Mercury	30784-02-14 08:24 G	12964728.73	12964728.85	12964728.97	0.1793	0.0099
Mercury	30792-09-11 08:53 G	12967860.77	12967860.87	12967860.97	0.1736	0.1296
Mercury	30793-07-06 16:33 G	12968159.09	12968159.19	12968159.30	0.1802	0.0964
Venus	30798-04-02 07:26 G	12969889.65	12969889.81	12969889.97	0.1687	0.0680
Mercury	30813-05-31 04:48 G	12975427.64	12975427.70	12975427.76	0.1753	0.1600
Mercury	30814-03-25 00:14 G	12975725.43	12975725.51	12975725.59	0.1785	0.1295
Mercury	30822-10-21 07:12 G	12978857.65	12978857.80	12978857.95	0.1745	0.0247
Mercury	30823-08-15 08:24 G	12979155.73	12979155.85	12979155.97	0.1793	0.0245
Venus	30830-04-01 07:12 G	12981576.74	12981576.80	12981576.86	0.1699	0.1566
Mercury	30832-03-12 09:21 G	12982287.77	12982287.89	12982288.00	0.1737	0.1127
Mercury	30833-01-04 16:48 G	12982586.09	12982586.20	12982586.31	0.1801	0.0822
Venus	30836-09-13 07:12 G	12983933.62	12983933.80	12983933.97	0.1848	0.0126
Earth	30846-06-15 19:55 G	12987496.15	12987496.33	12987496.51	0.1647	0.0418
Moon	30846-06-16 01:55 G	12987496.41	12987496.58	12987496.75	0.1647	0.0635 *
Mercury	30853-09-23 00:14 G	12990152.44	12990152.51	12990152.59	0.1785	0.1443
Mercury	30862-04-21 07:41 G	12993284.67	12993284.82	12993284.97	0.1745	0.0426
Mercury	30863-02-13 08:24 G	12993582.73	12993582.85	12993582.97	0.1793	0.0385
Venus	30864-01-28 18:29 G	12993932.13	12993932.27	12993932.41	0.1684	0.0980
Mercury	30871-09-11 09:50 G	12996714.79	12996714.91	12996715.04	0.1737	0.0928
Mercury	30872-07-05 16:48 G	12997013.08	12997013.20	12997013.31	0.1801	0.0693
Mercury	30881-11-26 00:57 G	13000443.52	13000443.54	13000443.57	0.1810	0.1754
Mercury	30893-03-24 00:29 G	13004579.47	13004579.52	13004579.57	0.1785	0.1590
Venus	30896-01-27 17:31 G	13005619.11	13005619.23	13005619.34	0.1695	0.1236
Mercury	30901-10-21 08:09 G	13007711.70	13007711.84	13007711.98	0.1745	0.0618
Venus	30902-07-12 12:43 G	13007975.86	13007976.03	13007976.20	0.1852	0.0469
Mercury	30902-08-15 08:38 G	13008009.74	13008009.86	13008009.98	0.1793	0.0523
Mercury	30911-03-13 10:33 G	13011141.80	13011141.94	13011142.07	0.1737	0.0745
Mercury	30912-01-05 16:48 G	13011440.08	13011440.20	13011440.32	0.1801	0.0550
Mercury	30921-05-28 00:57 G	13014870.49	13014870.54	13014870.59	0.1809	0.1623

Venus	30929-11-26 05:02 G	13017974.60	13017974.71	13017974.82	0.1680	0.1287
Mercury	30932-09-23 00:29 G	13019006.49	13019006.52	13019006.55	0.1784	0.1724
Mercury	30941-04-21 08:38 G	13022138.72	13022138.86	13022138.99	0.1745	0.0795
Mercury	30942-02-13 08:38 G	13022436.75	13022436.86	13022436.97	0.1793	0.0662
Mercury	30950-09-11 10:48 G	13025568.81	13025568.95	13025569.10	0.1737	0.0568
Mercury	30951-07-06 17:02 G	13025867.09	13025867.21	13025867.33	0.1801	0.0399
Mercury	30960-11-26 00:57 G	13029297.48	13029297.54	13029297.61	0.1809	0.1487
Venus	30961-11-25 03:36 G	13029661.50	13029661.65	13029661.80	0.1692	0.0900
Venus	30968-05-08 17:17 G	13032018.08	13032018.22	13032018.36	0.1857	0.1104
Mercury	30980-10-20 09:07 G	13036565.76	13036565.88	13036566.01	0.1746	0.0985
Mercury	30981-08-14 08:53 G	13036863.76	13036863.87	13036863.98	0.1792	0.0810
Mercury	30990-03-12 11:31 G	13039995.83	13039995.98	13039996.13	0.1737	0.0370
Mercury	30991-01-04 16:48 G	13040294.08	13040294.20	13040294.32	0.1801	0.0277
Venus	30995-09-23 15:50 G	13042017.11	13042017.16	13042017.22	0.1677	0.1583
Earth	30997-12-14 17:31 G	13042830.04	13042830.23	13042830.43	0.1885	0.0485
Moon	30997-12-14 22:33 G	13042830.23	13042830.44	13042830.66	0.1886	0.0304 *
Mercury	31000-05-28 01:12 G	13043724.47	13043724.55	13043724.63	0.1809	0.1340

32ND MILLENNIUM CE

This is a list of transits visible from Mars in the 32nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	31020-04-21 09:36 G	13050992.79	13050992.90	13050993.02	0.1746	0.1172		
Mercury	31021-02-13 08:53 G	13051290.76	13051290.87	13051290.97	0.1792	0.0946		

Venus	31027-09-23 14:24 G	13053703.94	13053704.10	13053704.26	0.1688	0.0590
Mercury	31029-09-11 12:00 G	13054422.85	13054423.00	13054423.15	0.1738	0.0187
Mercury	31030-07-06 17:02 G	13054721.09	13054721.21	13054721.33	0.1800	0.0124
Venus	31034-03-06 22:33 G	13056060.37	13056060.44	13056060.50	0.1861	0.1721
Mercury	31039-02-01 14:09 G	13057853.02	13057853.09	13057853.16	0.1730	0.1547
Mercury	31039-11-27 01:12 G	13058151.46	13058151.55	13058151.64	0.1809	0.1208
Moon	31051-06-16 10:05 G	13062370.76	13062370.92	13062371.07	0.1656	0.0948
Earth	31051-06-16 17:02 G	13062371.04	13062371.21	13062371.38	0.1656	0.0739 *
Mercury	31059-10-21 10:05 G	13065419.83	13065419.92	13065420.02	0.1746	0.1352
Mercury	31060-08-14 08:53 G	13065717.78	13065717.87	13065717.97	0.1792	0.1094
Venus	31066-03-06 15:21 G	13067748.07	13067748.14	13067748.20	0.1846	0.1693
Mercury	31069-03-12 12:29 G	13068849.86	13068850.02	13068850.17	0.1738	0.0038
Mercury	31070-01-04 17:02 G	13069148.09	13069148.21	13069148.34	0.1800	0.0050
Mercury	31078-08-02 14:38 G	13072280.02	13072280.11	13072280.21	0.1730	0.1359
Mercury	31079-05-28 01:12 G	13072578.45	13072578.55	13072578.65	0.1809	0.1069
Venus	31093-07-21 00:29 G	13077746.35	13077746.52	13077746.70	0.1685	0.0264
Mercury	31099-04-21 10:33 G	13079846.87	13079846.94	13079847.01	0.1746	0.1535
Mercury	31100-02-13 08:53 G	13080144.79	13080144.87	13080144.96	0.1792	0.1232
Mercury	31108-09-11 12:57 G	13083276.89	13083277.04	13083277.20	0.1738	0.0193
Mercury	31109-07-06 17:02 G	13083575.09	13083575.21	13083575.34	0.1800	0.0161
Mercury	31118-02-01 15:07 G	13086707.02	13086707.13	13086707.24	0.1730	0.1182
Mercury	31118-11-27 01:26 G	13087005.45	13087005.56	13087005.66	0.1808	0.0919
Moon	31130-06-19 20:38 G	13091228.21	13091228.36	13091228.52	0.1652	0.1089
Earth	31130-06-19 22:19 G	13091228.29	13091228.43	13091228.57	0.1652	0.1106 *
Venus	31132-01-02 20:24 G	13091790.21	13091790.35	13091790.49	0.1851	0.1097
Mercury	31138-10-21 11:17 G	13094273.95	13094273.97	13094273.99	0.1747	0.1729
Mercury	31139-08-15 09:07 G	13094571.80	13094571.88	13094571.96	0.1792	0.1376
Mercury	31148-03-12 13:26 G	13097703.92	13097704.06	13097704.21	0.1738	0.0374
Mercury	31149-01-04 17:17 G	13098002.10	13098002.22	13098002.34	0.1800	0.0300
Mercury	31157-08-02 15:36 G	13101134.03	13101134.15	13101134.28	0.1730	0.0993

Mercury	31158-05-28 01:26 G	13101432.45	13101432.56	13101432.67	0.1808	0.0790
Venus	31159-05-19 11:31 G	13101788.80	13101788.98	13101789.15	0.1682	0.0060
Mercury	31179-02-13 09:07 G	13108998.82	13108998.88	13108998.94	0.1792	0.1522
Mercury	31187-09-11 13:55 G	13112130.94	13112131.08	13112131.23	0.1739	0.0549
Mercury	31188-07-05 17:17 G	13112429.10	13112429.22	13112429.34	0.1800	0.0451
Mercury	31197-01-31 16:19 G	13115561.05	13115561.18	13115561.32	0.1731	0.0796
Venus	31197-10-30 01:26 G	13115832.39	13115832.56	13115832.73	0.1855	0.0484
Mercury	31197-11-26 01:26 G	13115859.45	13115859.56	13115859.67	0.1808	0.0648
Mercury	31207-04-18 09:36 G	13119289.87	13119289.90	13119289.94	0.1816	0.1732
Mercury	31218-08-14 09:21 G	13123425.84	13123425.89	13123425.93	0.1791	0.1667
Venus	31225-03-15 22:19 G	13125831.26	13125831.43	13125831.60	0.1678	0.0347
Mercury	31227-03-12 14:38 G	13126557.97	13126558.11	13126558.24	0.1739	0.0745
Mercury	31228-01-04 17:17 G	13126856.10	13126856.22	13126856.34	0.1800	0.0576
Mercury	31236-08-01 16:33 G	13129988.05	13129988.19	13129988.34	0.1731	0.0630
Mercury	31237-05-27 01:41 G	13130286.45	13130286.57	13130286.68	0.1808	0.0502
Mercury	31246-10-17 09:50 G	13133716.85	13133716.91	13133716.97	0.1816	0.1589
Venus	31263-08-27 06:29 G	13139874.59	13139874.77	13139874.94	0.1859	0.0151
Mercury	31266-09-10 15:07 G	13140985.00	13140985.13	13140985.26	0.1739	0.0927
Mercury	31267-07-05 17:31 G	13141283.11	13141283.23	13141283.34	0.1799	0.0730
Mercury	31276-01-31 17:17 G	13144415.08	13144415.22	13144415.37	0.1731	0.0427
Mercury	31276-11-25 01:41 G	13144713.45	13144713.57	13144713.68	0.1808	0.0371
Moon	31281-12-15 23:31 G	13146560.38	13146560.48	13146560.58	0.1876	0.1607
Earth	31281-12-16 07:26 G	13146560.66	13146560.81	13146560.97	0.1876	0.1138
Mercury	31286-04-17 09:50 G	13148143.84	13148143.91	13148143.98	0.1816	0.1456
Venus	31291-01-11 09:21 G	13149873.73	13149873.89	13149874.05	0.1675	0.0640
Mercury	31306-03-12 15:36 G	13155412.03	13155412.15	13155412.26	0.1739	0.1109
Mercury	31307-01-04 17:31 G	13155710.12	13155710.23	13155710.34	0.1799	0.0872
Mercury	31315-08-02 18:00 G	13158842.09	13158842.25	13158842.40	0.1731	0.0243
Mercury	31316-05-27 01:41 G	13159140.45	13159140.57	13159140.69	0.1807	0.0227
Venus	31323-01-11 07:26 G	13161560.75	13161560.81	13161560.88	0.1686	0.1544

Mercury	31324-12-22 19:55 G	13162272.28	13162272.33	13162272.39	0.1723	0.1601
Mercury	31325-10-17 09:50 G	13162570.83	13162570.91	13162571.00	0.1816	0.1310
Venus	31329-06-24 11:31 G	13163916.82	13163916.98	13163917.13	0.1864	0.0765
Earth	31335-06-19 18:14 G	13166103.07	13166103.26	13166103.45	0.1661	0.0088
Moon	31335-06-19 18:57 G	13166103.12	13166103.29	13166103.47	0.1661	0.0124 *
Mercury	31345-09-10 16:05 G	13169839.07	13169839.17	13169839.27	0.1739	0.1302
Mercury	31346-07-05 17:31 G	13170137.13	13170137.23	13170137.33	0.1799	0.1010
Mercury	31355-01-31 18:14 G	13173269.11	13173269.26	13173269.41	0.1731	0.0066
Mercury	31355-11-26 01:41 G	13173567.45	13173567.57	13173567.70	0.1807	0.0096
Venus	31356-11-08 20:09 G	13173916.20	13173916.34	13173916.48	0.1672	0.0935
Mercury	31364-06-22 20:24 G	13176699.27	13176699.35	13176699.44	0.1724	0.1415
Mercury	31365-04-17 09:50 G	13176997.82	13176997.91	13176998.00	0.1815	0.1176
Mercury	31385-03-11 16:33 G	13184266.11	13184266.19	13184266.27	0.1739	0.1483
Mercury	31386-01-03 17:31 G	13184564.14	13184564.23	13184564.33	0.1799	0.1156
Venus	31388-11-07 18:00 G	13185603.13	13185603.25	13185603.37	0.1683	0.1221
Mercury	31394-08-01 18:57 G	13187696.13	13187696.29	13187696.44	0.1731	0.0135
Venus	31395-04-21 15:36 G	13187959.04	13187959.15	13187959.26	0.1868	0.1439
Mercury	31395-05-27 01:41 G	13187994.45	13187994.57	13187994.69	0.1807	0.0066
Mercury	31403-12-23 21:07 G	13191126.27	13191126.38	13191126.49	0.1723	0.1224
Mercury	31404-10-17 10:05 G	13191424.82	13191424.92	13191425.02	0.1815	0.1033
Venus	31422-09-07 07:26 G	13197958.69	13197958.81	13197958.93	0.1669	0.1222
Mercury	31424-09-10 17:02 G	13198693.17	13198693.21	13198693.25	0.1740	0.1663
Mercury	31425-07-05 17:45 G	13198991.16	13198991.24	13198991.32	0.1798	0.1304
Mercury	31434-01-31 19:26 G	13202123.16	13202123.31	13202123.46	0.1732	0.0324
Mercury	31434-11-26 01:55 G	13202421.45	13202421.58	13202421.70	0.1807	0.0212
Mercury	31443-06-23 21:36 G	13205553.28	13205553.40	13205553.52	0.1724	0.1042
Mercury	31444-04-17 10:05 G	13205851.81	13205851.92	13205852.02	0.1815	0.0891
Venus	31454-09-06 05:02 G	13209645.56	13209645.71	13209645.85	0.1680	0.0918
Mercury	31465-01-03 17:45 G	13213418.16	13213418.24	13213418.31	0.1799	0.1436
Mercury	31473-08-01 19:41 G	13216550.18	13216550.32	13216550.47	0.1732	0.0491

Mercury	31474-05-27 01:55 G	13216848.46	13216848.58	13216848.70	0.1807	0.0356
Mercury	31482-12-22 22:05 G	13219980.29	13219980.42	13219980.56	0.1724	0.0849
Mercury	31483-10-17 10:05 G	13220278.81	13220278.92	13220279.03	0.1815	0.0750
Venus	31488-07-04 18:14 G	13222001.19	13222001.26	13222001.33	0.1666	0.1518
Venus	31493-02-16 14:38 G	13223689.00	13223689.11	13223689.21	0.1858	0.1460
Mercury	31504-07-05 17:45 G	13227845.19	13227845.24	13227845.30	0.1798	0.1591
Mercury	31513-01-31 20:24 G	13230977.21	13230977.35	13230977.49	0.1732	0.0695
Mercury	31513-11-26 01:55 G	13231275.46	13231275.58	13231275.70	0.1806	0.0485
Venus	31520-07-04 15:21 G	13233687.98	13233688.14	13233688.30	0.1676	0.0595
Mercury	31522-06-23 22:33 G	13234407.30	13234407.44	13234407.58	0.1724	0.0670
Mercury	31523-04-18 10:05 G	13234705.81	13234705.92	13234706.04	0.1815	0.0613
Mercury	31532-09-07 18:29 G	13238136.23	13238136.27	13238136.31	0.1823	0.1704
Moon	31540-06-19 11:45 G	13240977.87	13240977.99	13240978.11	0.1671	0.1341
Earth	31540-06-19 13:12 G	13240977.94	13240978.05	13240978.16	0.1671	0.1366 *
Mercury	31544-01-04 18:00 G	13242272.22	13242272.25	13242272.28	0.1798	0.1733
Mercury	31552-08-01 20:53 G	13245404.24	13245404.37	13245404.50	0.1732	0.0877
Mercury	31553-05-27 01:55 G	13245702.47	13245702.58	13245702.70	0.1806	0.0629
Venus	31558-12-15 19:12 G	13247731.14	13247731.30	13247731.45	0.1863	0.0828
Mercury	31561-12-22 23:02 G	13248834.32	13248834.46	13248834.61	0.1724	0.0483
Mercury	31562-10-17 10:19 G	13249132.81	13249132.93	13249133.04	0.1814	0.0471
Earth	31565-12-18 22:05 G	13250291.35	13250291.42	13250291.48	0.1867	0.1745
Mercury	31572-03-08 18:14 G	13252563.21	13252563.26	13252563.32	0.1823	0.1582
Venus	31586-05-02 02:24 G	13257730.43	13257730.60	13257730.77	0.1673	0.0306
Mercury	31592-01-31 21:21 G	13259831.27	13259831.39	13259831.51	0.1732	0.1051
Mercury	31592-11-25 02:09 G	13260129.48	13260129.59	13260129.70	0.1806	0.0783
Mercury	31601-06-22 23:45 G	13263261.33	13263261.49	13263261.64	0.1725	0.0292
Mercury	31602-04-17 10:19 G	13263559.81	13263559.93	13263560.05	0.1814	0.0335
Mercury	31610-11-13 01:55 G	13266691.54	13266691.58	13266691.62	0.1717	0.1640
Mercury	31611-09-07 18:29 G	13266990.20	13266990.27	13266990.34	0.1823	0.1431
Earth	31619-06-22 18:43 G	13269835.10	13269835.28	13269835.46	0.1667	0.0560

Moon	31619-06-23 00:14 G	13269835.33	13269835.51	13269835.69	0.1666	0.0688 *
Venus	31624-10-11 23:45 G	13271773.32	13271773.49	13271773.66	0.1867	0.0182
Mercury	31631-08-01 21:50 G	13274258.31	13274258.41	13274258.52	0.1733	0.1246
Mercury	31632-05-26 02:09 G	13274556.48	13274556.59	13274556.69	0.1806	0.0913
Mercury	31640-12-22 00:14 G	13277688.35	13277688.51	13277688.66	0.1725	0.0110
Mercury	31641-10-16 10:19 G	13277986.81	13277986.93	13277987.05	0.1814	0.0182
Mercury	31650-05-14 02:09 G	13281118.52	13281118.59	13281118.67	0.1717	0.1468
Mercury	31651-03-08 18:29 G	13281417.19	13281417.27	13281417.36	0.1822	0.1288
Venus	31652-02-27 13:26 G	13281772.88	13281773.06	13281773.23	0.1670	0.0036
Mercury	31671-01-30 22:33 G	13288685.35	13288685.44	13288685.52	0.1733	0.1440
Mercury	31671-11-25 02:09 G	13288983.49	13288983.59	13288983.69	0.1806	0.1060
Mercury	31680-06-22 00:43 G	13292115.37	13292115.53	13292115.68	0.1725	0.0083
Mercury	31681-04-16 10:19 G	13292413.81	13292413.93	13292414.05	0.1814	0.0044
Mercury	31689-11-12 02:53 G	13295545.52	13295545.62	13295545.73	0.1717	0.1266
Venus	31690-08-09 03:50 G	13295815.50	13295815.66	13295815.83	0.1871	0.0489
Mercury	31690-09-06 18:29 G	13295844.18	13295844.27	13295844.36	0.1822	0.1158
Mercury	31710-08-01 22:48 G	13303112.39	13303112.45	13303112.50	0.1733	0.1604
Mercury	31711-05-27 02:24 G	13303410.51	13303410.60	13303410.69	0.1806	0.1214
Venus	31717-12-26 00:29 G	13305815.35	13305815.52	13305815.69	0.1667	0.0285
Mercury	31719-12-23 01:12 G	13306542.40	13306542.55	13306542.70	0.1725	0.0273
Mercury	31720-10-16 10:19 G	13306840.81	13306840.93	13306841.05	0.1814	0.0106
Mercury	31729-05-14 03:21 G	13309972.52	13309972.64	13309972.76	0.1717	0.1084
Mercury	31730-03-08 18:29 G	13310271.17	13310271.27	13310271.37	0.1822	0.1015
Mercury	31750-11-25 02:09 G	13317837.51	13317837.59	13317837.67	0.1805	0.1345
Venus	31756-06-06 08:24 G	13319857.72	13319857.85	13319857.99	0.1875	0.1143
Mercury	31759-06-23 01:41 G	13320969.42	13320969.57	13320969.72	0.1725	0.0448
Mercury	31760-04-16 10:19 G	13321267.81	13321267.93	13321268.05	0.1814	0.0245
Mercury	31768-11-12 03:50 G	13324399.53	13324399.66	13324399.80	0.1718	0.0902
Mercury	31769-09-06 18:43 G	13324698.17	13324698.28	13324698.39	0.1822	0.0862
Venus	31783-10-23 11:45 G	13329857.82	13329857.99	13329858.15	0.1664	0.0576

Mercury	31790-05-26 02:24 G	13332264.53	13332264.60	13332264.66	0.1805	0.1489
Mercury	31798-12-22 02:09 G	13335396.45	13335396.59	13335396.74	0.1725	0.0641
Mercury	31799-10-16 10:33 G	13335694.82	13335694.94	13335695.06	0.1813	0.0388
Mercury	31808-05-14 04:33 G	13338826.55	13338826.69	13338826.83	0.1718	0.0708
Mercury	31809-03-08 18:29 G	13339125.16	13339125.27	13339125.38	0.1822	0.0741
Venus	31815-10-23 08:38 G	13341544.80	13341544.86	13341544.93	0.1674	0.1550
Venus	31822-04-04 12:00 G	13343899.98	13343900.00	13343900.02	0.1879	0.1858
Moon	31824-06-22 06:14 G	13344709.61	13344709.76	13344709.91	0.1677	0.0910
Earth	31824-06-22 11:45 G	13344709.82	13344709.99	13344710.15	0.1677	0.0795 *
Mercury	31829-11-25 02:24 G	13346691.56	13346691.60	13346691.65	0.1805	0.1647
Mercury	31838-06-23 02:38 G	13349823.48	13349823.61	13349823.75	0.1726	0.0830
Mercury	31839-04-17 10:33 G	13350121.82	13350121.94	13350122.05	0.1813	0.0524
Mercury	31847-11-13 05:02 G	13353253.56	13353253.71	13353253.86	0.1718	0.0522
Mercury	31848-09-06 18:43 G	13353552.16	13353552.28	13353552.39	0.1822	0.0587
Venus	31849-08-20 23:02 G	13353900.31	13353900.46	13353900.61	0.1661	0.0860
Venus	31854-04-04 07:55 G	13355587.79	13355587.83	13355587.87	0.1865	0.1804
Mercury	31858-01-28 02:53 G	13356982.58	13356982.62	13356982.66	0.1830	0.1712
Mercury	31869-05-26 02:24 G	13361118.58	13361118.60	13361118.62	0.1805	0.1774
Mercury	31877-12-22 03:07 G	13364250.51	13364250.63	13364250.76	0.1726	0.1008
Mercury	31878-10-16 10:33 G	13364548.83	13364548.94	13364549.05	0.1813	0.0673
Venus	31881-08-19 19:41 G	13365587.21	13365587.32	13365587.44	0.1671	0.1251
Mercury	31887-05-14 05:31 G	13367680.57	13367680.73	13367680.88	0.1718	0.0349
Mercury	31888-03-07 18:43 G	13367979.16	13367979.28	13367979.40	0.1821	0.0445
Mercury	31896-10-03 07:41 G	13371110.80	13371110.82	13371110.85	0.1711	0.1681
Mercury	31897-07-29 02:53 G	13371409.56	13371409.62	13371409.68	0.1829	0.1568
Moon	31903-06-26 12:29 G	13373566.88	13373567.02	13373567.15	0.1673	0.1205
Earth	31903-06-26 18:14 G	13373567.13	13373567.26	13373567.39	0.1672	0.1192 *
Venus	31915-06-19 09:50 G	13377942.79	13377942.91	13377943.04	0.1658	0.1149
Mercury	31917-06-23 03:36 G	13378677.54	13378677.65	13378677.76	0.1726	0.1194
Mercury	31918-04-17 10:33 G	13378975.83	13378975.94	13378976.05	0.1813	0.0810

Venus	31920-01-31 12:00 G	13379629.87	13379630.00	13379630.14	0.1870	0.1142
Mercury	31926-11-13 06:00 G	13382107.60	13382107.75	13382107.91	0.1718	0.0148
Mercury	31927-09-07 18:43 G	13382406.16	13382406.28	13382406.40	0.1821	0.0310
Earth	31928-12-24 18:43 G	13382880.16	13382880.28	13382880.41	0.1865	0.1460
Mercury	31936-04-04 07:55 G	13385537.77	13385537.83	13385537.91	0.1711	0.1512
Mercury	31937-01-28 03:07 G	13385836.55	13385836.63	13385836.70	0.1829	0.1421
Venus	31947-06-18 06:14 G	13389629.62	13389629.76	13389629.90	0.1668	0.0936
Mercury	31956-12-22 04:19 G	13393104.59	13393104.68	13393104.77	0.1726	0.1390
Mercury	31957-10-16 10:33 G	13393402.84	13393402.94	13393403.05	0.1813	0.0954
Mercury	31966-05-14 06:29 G	13396534.62	13396534.77	13396534.93	0.1718	0.0041
Mercury	31967-03-08 18:43 G	13396833.16	13396833.28	13396833.40	0.1821	0.0172
Mercury	31975-10-04 08:38 G	13399964.77	13399964.86	13399964.96	0.1711	0.1312
Mercury	31976-07-29 03:07 G	13400263.54	13400263.63	13400263.71	0.1829	0.1289
Venus	31981-04-15 21:21 G	13401985.30	13401985.39	13401985.47	0.1655	0.1431
Venus	31985-11-27 16:05 G	13403672.00	13403672.17	13403672.33	0.1874	0.0469
Mercury	31996-06-22 04:33 G	13407531.63	13407531.69	13407531.75	0.1726	0.1563
Mercury	31997-04-16 10:48 G	13407829.85	13407829.95	13407830.04	0.1813	0.1103

33RD MILLENNIUM CE

This is a list of transits visible from Mars in the 33rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	32005-11-12 06:57 G	13410961.64	13410961.79	13410961.95	0.1719	0.0222		
Mercury	32006-09-06 18:57 G	13411260.17	13411260.29	13411260.41	0.1821	0.0022		

Venus	32013-04-14 17:45 G	13413672.08	13413672.24	13413672.40	0.1665	0.0654
Mercury	32015-04-04 09:07 G	13414391.77	13414391.88	13414392.00	0.1711	0.1125
Mercury	32016-01-28 02:53 G	13414690.53	13414690.62	13414690.72	0.1829	0.1154
Mercury	32036-10-15 10:48 G	13422256.86	13422256.95	13422257.04	0.1812	0.1246
Mercury	32045-05-13 07:26 G	13425388.66	13425388.81	13425388.96	0.1719	0.0413
Mercury	32046-03-07 18:43 G	13425687.16	13425687.28	13425687.41	0.1821	0.0130
Venus	32051-09-24 20:09 G	13427714.17	13427714.34	13427714.51	0.1878	0.0216
Mercury	32054-10-03 09:36 G	13428818.77	13428818.90	13428819.03	0.1711	0.0948
Mercury	32055-07-29 03:07 G	13429117.53	13429117.63	13429117.73	0.1829	0.0995
Mercury	32076-04-15 10:48 G	13436683.87	13436683.95	13436684.02	0.1812	0.1383
Venus	32079-02-10 04:33 G	13437714.52	13437714.69	13437714.86	0.1662	0.0359
Mercury	32084-11-11 08:09 G	13439815.69	13439815.84	13439815.98	0.1719	0.0600
Mercury	32085-09-05 18:57 G	13440114.17	13440114.29	13440114.41	0.1820	0.0267
Mercury	32094-04-03 10:19 G	13443245.79	13443245.93	13443246.07	0.1711	0.0751
Mercury	32095-01-27 03:07 G	13443544.52	13443544.63	13443544.73	0.1829	0.0869
Earth	32108-06-25 09:07 G	13448441.69	13448441.88	13448442.07	0.1683	0.0239
Moon	32108-06-25 15:21 G	13448441.96	13448442.14	13448442.33	0.1683	0.0269 *
Mercury	32115-10-16 10:48 G	13451110.89	13451110.95	13451111.02	0.1812	0.1539
Venus	32117-07-22 23:45 G	13451756.34	13451756.49	13451756.64	0.1882	0.0921
Mercury	32124-05-13 08:24 G	13454242.72	13454242.85	13454242.99	0.1719	0.0779
Mercury	32125-03-07 18:57 G	13454541.17	13454541.29	13454541.41	0.1820	0.0411
Mercury	32133-10-03 10:48 G	13457672.81	13457672.95	13457673.10	0.1712	0.0558
Mercury	32134-07-29 03:07 G	13457971.52	13457971.63	13457971.74	0.1828	0.0721
Venus	32144-12-08 16:05 G	13461757.00	13461757.17	13461757.34	0.1659	0.0080
Mercury	32155-04-16 10:48 G	13465537.91	13465537.95	13465538.00	0.1812	0.1675
Mercury	32163-11-12 09:07 G	13468669.75	13468669.88	13468670.01	0.1719	0.0976
Mercury	32164-09-05 18:57 G	13468968.18	13468968.29	13468968.41	0.1820	0.0551
Mercury	32173-04-03 11:02 G	13472099.81	13472099.96	13472100.12	0.1712	0.0391
Mercury	32174-01-27 03:07 G	13472398.52	13472398.63	13472398.75	0.1828	0.0576
Venus	32183-05-20 03:50 G	13475798.57	13475798.66	13475798.75	0.1886	0.1617

Mercury	32183-06-19 11:17 G	13475828.93	13475828.97	13475829.01	0.1836	0.1714
Mercury	32203-05-14 09:36 G	13483096.78	13483096.90	13483097.01	0.1719	0.1157
Mercury	32204-03-07 18:57 G	13483395.18	13483395.29	13483395.41	0.1820	0.0698
Venus	32210-10-07 03:21 G	13485799.47	13485799.64	13485799.81	0.1656	0.0206
Mercury	32212-10-03 11:45 G	13486526.84	13486526.99	13486527.15	0.1712	0.0190
Moon	32212-12-26 03:36 G	13486610.46	13486610.65	13486610.84	0.1855	0.0742
Earth	32212-12-26 11:02 G	13486610.79	13486610.96	13486611.13	0.1855	0.0895 *
Mercury	32213-07-29 03:07 G	13486825.52	13486825.63	13486825.75	0.1828	0.0441
Mercury	32222-02-23 13:55 G	13489957.02	13489957.08	13489957.14	0.1704	0.1541
Mercury	32222-12-19 11:17 G	13490255.91	13490255.97	13490256.03	0.1836	0.1574
Mercury	32242-11-12 10:05 G	13497523.82	13497523.92	13497524.01	0.1720	0.1343
Mercury	32243-09-06 19:12 G	13497822.19	13497822.30	13497822.41	0.1820	0.0846
Mercury	32252-04-03 12:29 G	13500953.86	13500954.02	13500954.17	0.1712	0.0052
Mercury	32253-01-27 03:07 G	13501252.51	13501252.63	13501252.75	0.1828	0.0301
Mercury	32261-08-24 14:24 G	13504384.01	13504384.10	13504384.20	0.1705	0.1352
Mercury	32262-06-19 11:31 G	13504682.90	13504682.98	13504683.05	0.1836	0.1429
Venus	32276-08-03 14:53 G	13509841.96	13509842.12	13509842.29	0.1654	0.0484
Venus	32281-03-17 04:19 G	13511528.57	13511528.68	13511528.79	0.1877	0.1442
Mercury	32282-05-13 10:33 G	13511950.87	13511950.94	13511951.01	0.1720	0.1532
Mercury	32283-03-07 19:12 G	13512249.19	13512249.30	13512249.40	0.1820	0.0982
Mercury	32291-10-03 12:43 G	13515380.88	13515381.03	13515381.19	0.1712	0.0180
Mercury	32292-07-28 03:21 G	13515679.52	13515679.64	13515679.76	0.1828	0.0139
Mercury	32301-02-23 15:07 G	13518811.02	13518811.13	13518811.24	0.1705	0.1157
Mercury	32301-12-19 11:31 G	13519109.89	13519109.98	13519110.06	0.1836	0.1291
Venus	32308-08-03 11:02 G	13521528.91	13521528.96	13521529.00	0.1663	0.1601
Mercury	32322-09-06 19:12 G	13526676.21	13526676.30	13526676.40	0.1819	0.1135
Mercury	32331-04-04 13:26 G	13529807.91	13529808.06	13529808.21	0.1713	0.0379
Mercury	32332-01-28 03:21 G	13530106.51	13530106.64	13530106.76	0.1828	0.0060
Mercury	32340-08-24 15:36 G	13533238.02	13533238.15	13533238.27	0.1705	0.0980
Mercury	32341-06-19 11:31 G	13533536.89	13533536.98	13533537.07	0.1836	0.1144

Venus	32342-06-02 02:09 G	13533884.44	13533884.59	13533884.74	0.1651	0.0762
Venus	32347-01-13 07:55 G	13535570.67	13535570.83	13535571.00	0.1881	0.0747
Mercury	32362-03-07 19:12 G	13541103.22	13541103.30	13541103.39	0.1819	0.1279
Mercury	32370-10-03 13:55 G	13544234.93	13544235.08	13544235.23	0.1713	0.0569
Mercury	32371-07-29 03:21 G	13544533.52	13544533.64	13544533.76	0.1827	0.0139
Venus	32374-05-31 21:50 G	13545571.30	13545571.41	13545571.51	0.1660	0.1298
Mercury	32380-02-23 16:05 G	13547665.03	13547665.17	13547665.31	0.1705	0.0784
Mercury	32380-12-18 11:31 G	13547963.88	13547963.98	13547964.08	0.1835	0.1005
Earth	32392-06-28 06:00 G	13552173.56	13552173.75	13552173.94	0.1689	0.0313
Moon	32392-06-28 07:12 G	13552173.60	13552173.80	13552174.00	0.1689	0.0171 *
Mercury	32401-09-05 19:12 G	13555530.23	13555530.30	13555530.38	0.1819	0.1423
Venus	32408-03-29 13:41 G	13557926.94	13557927.07	13557927.21	0.1648	0.1039
Mercury	32410-04-03 14:09 G	13558661.96	13558662.09	13558662.23	0.1713	0.0744
Mercury	32411-01-27 03:21 G	13558960.52	13558960.64	13558960.76	0.1827	0.0295
Venus	32412-11-09 11:31 G	13559612.81	13559612.98	13559613.16	0.1885	0.0055
Mercury	32419-08-24 16:33 G	13562092.05	13562092.19	13562092.34	0.1706	0.0595
Mercury	32420-06-18 11:31 G	13562390.88	13562390.98	13562391.09	0.1835	0.0862
Venus	32440-03-28 09:36 G	13569613.76	13569613.90	13569614.03	0.1657	0.1024
Mercury	32441-03-06 19:12 G	13569957.25	13569957.30	13569957.36	0.1819	0.1571
Mercury	32449-10-02 14:53 G	13573088.99	13573089.12	13573089.25	0.1713	0.0946
Mercury	32450-07-28 03:21 G	13573387.52	13573387.64	13573387.76	0.1827	0.0426
Mercury	32459-02-22 17:02 G	13576519.06	13576519.21	13576519.37	0.1705	0.0410
Mercury	32459-12-18 11:31 G	13576817.87	13576817.98	13576818.10	0.1835	0.0717
Venus	32474-01-25 01:26 G	13581969.46	13581969.56	13581969.66	0.1645	0.1301
Venus	32478-09-06 15:21 G	13583654.98	13583655.14	13583655.31	0.1889	0.0675
Mercury	32480-09-04 19:26 G	13584384.27	13584384.31	13584384.35	0.1819	0.1720
Mercury	32489-04-02 15:36 G	13587516.03	13587516.15	13587516.26	0.1713	0.1135
Mercury	32490-01-26 03:21 G	13587814.53	13587814.64	13587814.76	0.1827	0.0574
Earth	32496-12-27 06:00 G	13590341.56	13590341.75	13590341.94	0.1845	0.0465
Moon	32496-12-27 06:00 G	13590341.58	13590341.75	13590341.93	0.1845	0.0396 *

Mercury	32498-08-23 17:45 G	13590946.08	13590946.24	13590946.39	0.1706	0.0219
Mercury	32499-06-18 11:31 G	13591244.87	13591244.98	13591245.10	0.1835	0.0577
Venus	32506-01-24 20:38 G	13593656.20	13593656.36	13593656.51	0.1654	0.0736
Mercury	32508-01-14 19:55 G	13594376.27	13594376.33	13594376.39	0.1698	0.1556
Mercury	32508-11-08 19:41 G	13594675.29	13594675.32	13594675.36	0.1843	0.1730
Mercury	32528-10-02 15:50 G	13601943.06	13601943.16	13601943.26	0.1713	0.1312
Mercury	32529-07-28 03:36 G	13602241.54	13602241.65	13602241.76	0.1827	0.0733
Mercury	32538-02-22 18:14 G	13605373.11	13605373.26	13605373.42	0.1706	0.0034
Mercury	32538-12-18 11:45 G	13605671.87	13605671.99	13605672.10	0.1835	0.0434
Venus	32539-11-23 12:57 G	13606011.99	13606012.04	13606012.09	0.1643	0.1573
Venus	32544-07-04 18:43 G	13607697.16	13607697.28	13607697.39	0.1893	0.1413
Mercury	32547-07-15 20:24 G	13608803.26	13608803.35	13608803.44	0.1699	0.1372
Mercury	32548-05-09 19:55 G	13609102.27	13609102.33	13609102.39	0.1843	0.1583
Mercury	32568-04-02 16:33 G	13616370.12	13616370.19	13616370.26	0.1714	0.1512
Mercury	32569-01-26 03:36 G	13616668.54	13616668.65	13616668.75	0.1827	0.0862
Venus	32571-11-22 08:24 G	13617698.69	13617698.85	13617699.02	0.1652	0.0469
Mercury	32577-08-23 18:43 G	13619800.12	13619800.28	13619800.43	0.1706	0.0157
Mercury	32578-06-18 11:45 G	13620098.87	13620098.99	13620099.11	0.1835	0.0279
Mercury	32587-01-13 20:53 G	13623230.26	13623230.37	13623230.49	0.1699	0.1182
Mercury	32587-11-08 19:55 G	13623529.26	13623529.33	13623529.41	0.1842	0.1431
Earth	32597-06-27 17:17 G	13627048.10	13627048.22	13627048.34	0.1701	0.1308
Moon	32597-06-27 18:00 G	13627048.12	13627048.25	13627048.38	0.1701	0.1109 *
Mercury	32607-10-03 17:02 G	13630797.20	13630797.21	13630797.22	0.1714	0.1702
Mercury	32608-07-28 03:36 G	13631095.55	13631095.65	13631095.75	0.1826	0.1016
Mercury	32617-02-22 19:26 G	13634227.15	13634227.31	13634227.46	0.1706	0.0359
Mercury	32617-12-18 11:45 G	13634525.87	13634525.99	13634526.11	0.1834	0.0138
Mercury	32626-07-15 21:36 G	13637657.27	13637657.40	13637657.52	0.1699	0.0987
Mercury	32627-05-10 19:55 G	13637956.24	13637956.33	13637956.41	0.1843	0.1300
Venus	32637-09-19 20:09 G	13641741.16	13641741.34	13641741.51	0.1649	0.0199
Venus	32642-05-02 20:09 G	13643427.28	13643427.34	13643427.41	0.1883	0.1729

Mercury	32648-01-27 03:36 G	13645522.56	13645522.65	13645522.75	0.1826	0.1170
Mercury	32656-08-23 19:55 G	13648654.18	13648654.33	13648654.48	0.1707	0.0549
Mercury	32657-06-18 11:45 G	13648952.87	13648952.99	13648953.11	0.1834	0.0032
Mercury	32666-01-13 22:05 G	13652084.28	13652084.42	13652084.56	0.1699	0.0796
Mercury	32666-11-08 19:55 G	13652383.24	13652383.33	13652383.42	0.1842	0.1147
Moon	32676-06-30 19:41 G	13655905.15	13655905.32	13655905.50	0.1696	0.0538
Earth	32676-07-01 01:55 G	13655905.42	13655905.58	13655905.75	0.1696	0.0861 *
Mercury	32687-07-28 03:36 G	13659949.57	13659949.65	13659949.74	0.1826	0.1309
Mercury	32696-02-22 20:24 G	13663081.21	13663081.35	13663081.49	0.1707	0.0732
Mercury	32696-12-17 12:00 G	13663379.88	13663380.00	13663380.12	0.1834	0.0173
Venus	32703-07-19 07:41 G	13665783.65	13665783.82	13665783.99	0.1646	0.0077
Mercury	32705-07-15 22:33 G	13666511.29	13666511.44	13666511.59	0.1699	0.0612
Mercury	32706-05-10 19:55 G	13666810.23	13666810.33	13666810.43	0.1842	0.1005
Venus	32708-02-29 00:14 G	13667469.36	13667469.51	13667469.65	0.1888	0.1035
Mercury	32727-01-27 03:50 G	13674376.59	13674376.66	13674376.73	0.1826	0.1457
Mercury	32735-08-24 20:53 G	13677508.24	13677508.37	13677508.50	0.1707	0.0924
Mercury	32736-06-18 12:00 G	13677806.88	13677807.00	13677807.11	0.1834	0.0308
Mercury	32745-01-13 23:17 G	13680938.32	13680938.47	13680938.62	0.1699	0.0411
Mercury	32745-11-08 19:55 G	13681237.23	13681237.33	13681237.44	0.1842	0.0864
Mercury	32766-07-28 03:50 G	13688803.61	13688803.66	13688803.72	0.1826	0.1618
Venus	32769-05-15 19:26 G	13689826.14	13689826.31	13689826.48	0.1644	0.0344
Venus	32773-12-26 03:21 G	13691511.47	13691511.64	13691511.81	0.1892	0.0304
Mercury	32775-02-22 21:36 G	13691935.28	13691935.40	13691935.51	0.1707	0.1124
Mercury	32775-12-18 12:00 G	13692233.88	13692234.00	13692234.11	0.1834	0.0448
Earth	32780-12-30 03:21 G	13694072.44	13694072.64	13694072.83	0.1836	0.0148
Moon	32780-12-30 10:33 G	13694072.74	13694072.94	13694073.15	0.1836	0.0175 *
Mercury	32784-07-14 23:45 G	13695365.33	13695365.49	13695365.64	0.1700	0.0224
Mercury	32785-05-09 20:09 G	13695664.23	13695664.34	13695664.45	0.1842	0.0715
Mercury	32793-12-05 01:55 G	13698795.53	13698795.58	13698795.64	0.1693	0.1558
Mercury	32806-01-26 03:50 G	13703230.63	13703230.66	13703230.69	0.1826	0.1747

Mercury	32814-08-23 21:50 G	13706362.31	13706362.41	13706362.51	0.1707	0.1300
Mercury	32815-06-18 12:00 G	13706660.89	13706661.00	13706661.12	0.1834	0.0603
Mercury	32824-01-14 00:14 G	13709792.36	13709792.51	13709792.67	0.1700	0.0044
Mercury	32824-11-07 20:09 G	13710091.23	13710091.34	13710091.45	0.1841	0.0562
Mercury	32833-06-05 02:24 G	13713222.51	13713222.60	13713222.70	0.1693	0.1369
Mercury	32834-03-31 04:19 G	13713521.64	13713521.68	13713521.72	0.1850	0.1738
Venus	32835-03-13 07:12 G	13713868.64	13713868.80	13713868.96	0.1641	0.0610
Venus	32839-10-23 06:43 G	13715553.61	13715553.78	13715553.95	0.1896	0.0431
Mercury	32854-02-21 22:33 G	13720789.37	13720789.44	13720789.51	0.1707	0.1504
Mercury	32854-12-17 12:00 G	13721087.89	13721088.00	13721088.11	0.1833	0.0744
Mercury	32863-07-15 00:43 G	13724219.38	13724219.53	13724219.69	0.1700	0.0168
Mercury	32864-05-08 20:09 G	13724518.22	13724518.34	13724518.45	0.1842	0.0428
Venus	32867-03-12 02:09 G	13725555.51	13725555.59	13725555.68	0.1650	0.1432
Mercury	32872-12-04 03:07 G	13727649.51	13727649.63	13727649.74	0.1693	0.1187
Mercury	32873-09-29 04:19 G	13727948.63	13727948.68	13727948.74	0.1849	0.1580
Earth	32881-06-30 12:43 G	13730779.87	13730780.03	13730780.20	0.1708	0.0805
Moon	32881-06-30 19:55 G	13730780.14	13730780.33	13730780.51	0.1708	0.0458 *
Mercury	32893-08-22 23:02 G	13735216.45	13735216.46	13735216.48	0.1708	0.1695
Mercury	32894-06-17 12:00 G	13735514.90	13735515.00	13735515.11	0.1833	0.0890
Venus	32901-01-08 18:57 G	13737911.15	13737911.29	13737911.44	0.1639	0.0868
Mercury	32903-01-14 01:26 G	13738646.41	13738646.56	13738646.71	0.1700	0.0354
Mercury	32903-11-08 20:09 G	13738945.22	13738945.34	13738945.46	0.1841	0.0274
Venus	32905-08-20 10:05 G	13739595.79	13739595.92	13739596.06	0.1899	0.1174
Mercury	32912-06-05 03:36 G	13742076.53	13742076.65	13742076.78	0.1693	0.0983
Mercury	32913-03-31 04:19 G	13742375.61	13742375.68	13742375.75	0.1849	0.1451
Venus	32933-01-07 13:41 G	13749597.95	13749598.07	13749598.19	0.1647	0.1151
Mercury	32933-12-17 12:14 G	13749941.91	13749942.01	13749942.11	0.1833	0.1049
Mercury	32942-07-15 01:55 G	13753073.43	13753073.58	13753073.73	0.1701	0.0543
Mercury	32943-05-09 20:09 G	13753372.22	13753372.34	13753372.46	0.1841	0.0137
Mercury	32951-12-05 04:19 G	13756503.54	13756503.68	13756503.82	0.1693	0.0786

Mercury	32952-09-29 04:19 G	13756802.60	13756802.68	13756802.77	0.1849	0.1298
Earth	32960-07-03 22:05 G	13759637.32	13759637.42	13759637.52	0.1703	0.1425
Moon	32960-07-04 03:07 G	13759637.51	13759637.63	13759637.75	0.1703	0.1280 *
Venus	32966-11-06 06:57 G	13761953.66	13761953.79	13761953.91	0.1636	0.1131
Mercury	32973-06-17 12:14 G	13764368.92	13764369.01	13764369.10	0.1833	0.1187
Mercury	32982-01-13 02:38 G	13767500.47	13767500.61	13767500.75	0.1701	0.0742
Mercury	32982-11-07 20:24 G	13767799.22	13767799.35	13767799.47	0.1841	0.0074
Mercury	32991-06-05 04:48 G	13770930.55	13770930.70	13770930.84	0.1693	0.0612
Mercury	32992-03-30 04:33 G	13771229.60	13771229.69	13771229.78	0.1849	0.1144
Venus	32998-11-05 01:41 G	13773640.43	13773640.57	13773640.72	0.1645	0.0893

34TH MILLENNIUM CE

This is a list of transits visible from Mars in the 34th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	33012-12-17 12:14 G		13778795.93	13778796.01	13778796.09	0.1833	0.1337	
Mercury	33021-07-15 03:07 G		13781927.50	13781927.63	13781927.76	0.1701	0.0928	
Mercury	33022-05-09 20:24 G		13782226.23	13782226.35	13782226.47	0.1841	0.0175	
Mercury	33030-12-05 05:31 G		13785357.57	13785357.73	13785357.88	0.1694	0.0405	
Mercury	33031-09-30 04:33 G		13785656.59	13785656.69	13785656.79	0.1849	0.1011	
Venus	33032-09-03 19:12 G		13785996.21	13785996.30	13785996.39	0.1634	0.1373	
Mercury	33052-06-17 12:14 G		13793222.95	13793223.01	13793223.08	0.1833	0.1499	
Mercury	33061-01-13 03:36 G		13796354.54	13796354.65	13796354.77	0.1701	0.1123	
Mercury	33061-11-07 20:24 G		13796653.23	13796653.35	13796653.47	0.1840	0.0320	

Venus	33064-09-02 13:41 G	13797682.91	13797683.07	13797683.23	0.1642	0.0626
Moon	33064-12-31 18:29 G	13797803.08	13797803.27	13797803.46	0.1826	0.0588
Earth	33065-01-01 02:53 G	13797803.42	13797803.62	13797803.81	0.1827	0.0077 *
Venus	33069-04-14 15:36 G	13799368.02	13799368.15	13799368.28	0.1894	0.1303
Mercury	33070-06-05 06:00 G	13799784.59	13799784.75	13799784.90	0.1694	0.0213
Mercury	33071-03-31 04:33 G	13800083.58	13800083.69	13800083.79	0.1849	0.0863
Mercury	33079-10-26 08:09 G	13803214.78	13803214.84	13803214.90	0.1687	0.1552
Mercury	33091-12-17 12:14 G	13807649.96	13807650.01	13807650.07	0.1832	0.1636
Mercury	33100-07-15 04:05 G	13810781.57	13810781.67	13810781.77	0.1701	0.1312
Mercury	33101-05-09 20:24 G	13811080.23	13811080.35	13811080.47	0.1841	0.0461
Mercury	33109-12-05 06:29 G	13814211.61	13814211.77	13814211.93	0.1694	0.0038
Mercury	33110-09-30 04:33 G	13814510.58	13814510.69	13814510.81	0.1848	0.0704
Mercury	33119-04-27 08:38 G	13817641.77	13817641.86	13817641.95	0.1687	0.1358
Venus	33130-07-02 01:12 G	13821725.38	13821725.55	13821725.72	0.1640	0.0361
Mercury	33131-06-18 12:14 G	13822076.99	13822077.01	13822077.04	0.1832	0.1785
Venus	33135-02-10 19:12 G	13823410.13	13823410.30	13823410.47	0.1898	0.0576
Mercury	33140-01-14 04:48 G	13825208.63	13825208.70	13825208.77	0.1701	0.1507
Mercury	33140-11-07 20:24 G	13825507.24	13825507.35	13825507.47	0.1840	0.0620
Mercury	33149-06-05 07:12 G	13828638.64	13828638.80	13828638.95	0.1694	0.0181
Mercury	33150-03-31 04:33 G	13828937.58	13828937.69	13828937.80	0.1848	0.0572
Mercury	33158-10-26 09:07 G	13832068.77	13832068.88	13832068.99	0.1687	0.1172
Mercury	33159-08-21 12:43 G	13832368.00	13832368.03	13832368.07	0.1856	0.1740
Moon	33165-07-04 01:12 G	13834511.35	13834511.55	13834511.75	0.1715	0.0210
Earth	33165-07-04 07:12 G	13834511.61	13834511.80	13834511.99	0.1715	0.0324 *
Mercury	33179-07-15 05:17 G	13839635.71	13839635.72	13839635.73	0.1702	0.1698
Mercury	33180-05-08 20:38 G	13839934.25	13839934.36	13839934.46	0.1840	0.0766
Mercury	33188-12-04 07:41 G	13843065.67	13843065.82	13843065.97	0.1694	0.0369
Mercury	33189-09-29 04:33 G	13843364.58	13843364.69	13843364.81	0.1848	0.0421
Venus	33196-04-28 13:26 G	13845767.88	13845768.06	13845768.23	0.1637	0.0106
Mercury	33198-04-26 09:50 G	13846495.78	13846495.91	13846496.04	0.1687	0.0977

Mercury	33199-02-19 12:43 G	13846794.98	13846795.03	13846795.09	0.1856	0.1602
Venus	33200-12-07 21:50 G	13847452.24	13847452.41	13847452.59	0.1902	0.0195
Mercury	33219-11-07 20:38 G	13854361.25	13854361.36	13854361.46	0.1840	0.0914
Mercury	33228-06-04 07:55 G	13857492.69	13857492.83	13857492.98	0.1695	0.0548
Mercury	33229-03-30 04:48 G	13857791.58	13857791.70	13857791.82	0.1848	0.0264
Mercury	33237-10-25 10:33 G	13860922.80	13860922.94	13860923.08	0.1688	0.0777
Mercury	33238-08-20 12:57 G	13861221.96	13861222.04	13861222.11	0.1855	0.1455
Mercury	33259-05-08 20:38 G	13868788.26	13868788.36	13868788.46	0.1840	0.1062
Venus	33262-02-24 01:12 G	13869810.38	13869810.55	13869810.73	0.1635	0.0163
Venus	33266-10-05 00:57 G	13871494.39	13871494.54	13871494.70	0.1906	0.0958
Mercury	33267-12-04 08:53 G	13871919.73	13871919.87	13871920.01	0.1695	0.0755
Mercury	33268-09-28 04:48 G	13872218.58	13872218.70	13872218.82	0.1848	0.0141
Mercury	33277-04-25 10:48 G	13875349.80	13875349.95	13875350.10	0.1688	0.0596
Mercury	33278-02-18 12:57 G	13875648.95	13875649.04	13875649.12	0.1856	0.1303
Mercury	33298-11-06 20:38 G	13883215.27	13883215.36	13883215.45	0.1839	0.1212
Mercury	33307-06-05 09:21 G	13886346.76	13886346.89	13886347.02	0.1695	0.0943
Mercury	33308-03-30 04:48 G	13886645.58	13886645.70	13886645.82	0.1848	0.0042
Mercury	33316-10-25 11:31 G	13889776.83	13889776.98	13889777.14	0.1688	0.0393
Mercury	33317-08-20 12:57 G	13890075.95	13890076.04	13890076.13	0.1855	0.1158
Venus	33327-12-23 13:12 G	13893852.89	13893853.05	13893853.22	0.1633	0.0415
Venus	33332-08-02 03:50 G	13895536.59	13895536.66	13895536.73	0.1909	0.1740
Mercury	33338-05-08 20:38 G	13897642.28	13897642.36	13897642.44	0.1840	0.1358
Mercury	33346-12-04 09:50 G	13900773.79	13900773.91	13900774.02	0.1695	0.1128
Mercury	33347-09-29 04:48 G	13901072.59	13901072.70	13901072.82	0.1847	0.0199
Earth	33349-01-03 04:33 G	13901534.50	13901534.69	13901534.88	0.1817	0.0210
Moon	33349-01-03 05:45 G	13901534.57	13901534.74	13901534.91	0.1818	0.0456 *
Mercury	33356-04-25 12:00 G	13904203.85	13904204.00	13904204.16	0.1688	0.0203
Mercury	33357-02-18 12:57 G	13904502.94	13904503.04	13904503.14	0.1855	0.1020
Venus	33359-12-22 07:12 G	13905539.76	13905539.80	13905539.84	0.1640	0.1585
Mercury	33365-09-15 14:09 G	13907634.03	13907634.09	13907634.15	0.1681	0.1542

Mercury	33377-11-06 20:38 G	13912069.30	13912069.36	13912069.43	0.1839	0.1516
Mercury	33386-06-04 10:19 G	13915200.84	13915200.93	13915201.03	0.1695	0.1327
Mercury	33387-03-30 04:48 G	13915499.58	13915499.70	13915499.82	0.1847	0.0316
Venus	33393-10-20 01:12 G	13917895.39	13917895.55	13917895.71	0.1630	0.0674
Mercury	33395-10-25 12:29 G	13918630.86	13918631.02	13918631.18	0.1688	0.0034
Mercury	33396-08-19 12:57 G	13918929.94	13918930.04	13918930.15	0.1855	0.0860
Mercury	33405-03-17 14:38 G	13922061.02	13922061.11	13922061.21	0.1682	0.1352
Mercury	33417-05-08 20:38 G	13926496.32	13926496.36	13926496.41	0.1839	0.1659
Venus	33425-10-19 19:26 G	13929582.21	13929582.31	13929582.41	0.1638	0.1331
Mercury	33425-12-04 10:48 G	13929627.89	13929627.95	13929628.02	0.1695	0.1520
Mercury	33426-09-29 04:48 G	13929926.59	13929926.70	13929926.82	0.1847	0.0476
Venus	33430-05-31 06:57 G	13931266.70	13931266.79	13931266.89	0.1900	0.1573
Mercury	33435-04-26 13:12 G	13933057.89	13933058.05	13933058.21	0.1689	0.0182
Mercury	33436-02-19 12:57 G	13933356.93	13933357.04	13933357.15	0.1855	0.0724
Mercury	33444-09-15 15:21 G	13936488.03	13936488.14	13936488.26	0.1682	0.1153
Moon	33449-07-06 22:33 G	13938243.26	13938243.44	13938243.61	0.1722	0.0316
Earth	33449-07-07 00:14 G	13938243.32	13938243.51	13938243.70	0.1722	0.0127 *
Mercury	33456-11-06 20:53 G	13940923.35	13940923.37	13940923.38	0.1839	0.1812
Venus	33459-08-18 13:41 G	13941937.92	13941938.07	13941938.21	0.1628	0.0918
Mercury	33466-03-30 05:02 G	13944353.59	13944353.71	13944353.82	0.1847	0.0628
Mercury	33474-10-25 13:55 G	13947484.92	13947485.08	13947485.23	0.1689	0.0385
Mercury	33475-08-20 12:57 G	13947783.93	13947784.04	13947784.16	0.1854	0.0574
Mercury	33484-03-16 15:50 G	13950915.03	13950915.16	13950915.29	0.1682	0.0963
Mercury	33485-01-09 21:07 G	13951214.35	13951214.38	13951214.42	0.1862	0.1770
Venus	33491-08-17 07:26 G	13953624.68	13953624.81	13953624.94	0.1636	0.1065
Venus	33496-03-27 09:36 G	13955308.74	13955308.90	13955309.06	0.1904	0.0795
Mercury	33505-09-29 04:48 G	13958780.60	13958780.70	13958780.81	0.1847	0.0768
Mercury	33514-04-26 14:09 G	13961911.94	13961912.09	13961912.24	0.1689	0.0560
Mercury	33515-02-19 13:12 G	13962210.93	13962211.05	13962211.16	0.1855	0.0426
Mercury	33523-09-16 16:33 G	13965342.05	13965342.19	13965342.33	0.1682	0.0773

Mercury	33524-07-11 21:21 G	13965641.33	13965641.39	13965641.44	0.1862	0.1621
Venus	33525-06-16 01:12 G	13965980.44	13965980.55	13965980.67	0.1626	0.1175
Mercury	33545-03-30 05:02 G	13973207.60	13973207.71	13973207.81	0.1847	0.0919
Mercury	33553-10-25 14:53 G	13976338.98	13976339.12	13976339.26	0.1689	0.0762
Mercury	33554-08-20 12:57 G	13976637.93	13976638.04	13976638.16	0.1854	0.0285
Venus	33557-06-14 19:12 G	13977667.15	13977667.30	13977667.45	0.1633	0.0804
Venus	33562-01-23 12:43 G	13979350.86	13979351.03	13979351.21	0.1908	0.0034
Mercury	33563-03-17 17:02 G	13979769.06	13979769.21	13979769.36	0.1682	0.0576
Mercury	33564-01-10 21:07 G	13980068.31	13980068.38	13980068.45	0.1862	0.1485
Mercury	33584-09-28 05:02 G	13987634.61	13987634.71	13987634.81	0.1846	0.1077
Venus	33591-04-13 13:55 G	13990023.00	13990023.08	13990023.16	0.1624	0.1410
Mercury	33593-04-25 15:21 G	13990766.01	13990766.14	13990766.27	0.1689	0.0956
Mercury	33594-02-18 12:57 G	13991064.92	13991065.04	13991065.16	0.1854	0.0147
Mercury	33602-09-15 17:31 G	13994196.08	13994196.23	13994196.39	0.1682	0.0386
Mercury	33603-07-11 21:21 G	13994495.31	13994495.39	13994495.47	0.1862	0.1328
Venus	33623-04-12 07:26 G	14001709.64	14001709.81	14001709.97	0.1631	0.0548
Mercury	33624-03-29 05:02 G	14002061.62	14002061.71	14002061.80	0.1846	0.1210
Venus	33627-11-20 14:53 G	14003392.96	14003393.12	14003393.28	0.1911	0.0776
Mercury	33632-10-24 15:50 G	14005193.04	14005193.16	14005193.28	0.1689	0.1138
Earth	33633-01-05 07:26 G	14005265.62	14005265.81	14005266.00	0.1808	0.0294
Moon	33633-01-05 12:57 G	14005265.84	14005266.04	14005266.24	0.1809	0.0351 *
Mercury	33633-08-19 13:12 G	14005491.93	14005492.05	14005492.17	0.1854	0.0029
Mercury	33642-03-16 18:14 G	14008623.10	14008623.26	14008623.41	0.1683	0.0193
Mercury	33643-01-09 21:21 G	14008922.30	14008922.39	14008922.48	0.1861	0.1185
Mercury	33651-08-06 20:09 G	14012053.28	14012053.34	14012053.41	0.1676	0.1527
Mercury	33663-09-28 05:02 G	14016488.63	14016488.71	14016488.79	0.1846	0.1369
Mercury	33672-04-24 16:33 G	14019620.09	14019620.19	14019620.28	0.1690	0.1338
Mercury	33673-02-17 13:12 G	14019918.93	14019919.05	14019919.16	0.1854	0.0174
Mercury	33681-09-14 18:43 G	14023050.12	14023050.28	14023050.44	0.1683	0.0006
Mercury	33682-07-10 21:21 G	14023349.29	14023349.39	14023349.48	0.1862	0.1041

Venus	33689-02-06 19:12 G	14025752.13	14025752.30	14025752.48	0.1629	0.0290
Mercury	33691-02-04 20:53 G	14026480.27	14026480.37	14026480.46	0.1676	0.1342
Venus	33693-09-16 17:31 G	14027435.14	14027435.23	14027435.33	0.1915	0.1581
Mercury	33703-03-30 05:02 G	14030915.65	14030915.71	14030915.78	0.1846	0.1522
Mercury	33711-10-25 17:02 G	14034047.15	14034047.21	14034047.27	0.1690	0.1535
Mercury	33712-08-19 13:12 G	14034345.93	14034346.05	14034346.17	0.1854	0.0316
Mercury	33721-03-16 19:12 G	14037477.14	14037477.30	14037477.46	0.1683	0.0195
Mercury	33722-01-09 21:21 G	14037776.28	14037776.39	14037776.49	0.1861	0.0893
Mercury	33730-08-06 21:21 G	14040907.28	14040907.39	14040907.51	0.1676	0.1139
Earth	33733-07-09 15:07 G	14041974.94	14041975.13	14041975.31	0.1730	0.0509
Moon	33733-07-09 22:19 G	14041975.26	14041975.43	14041975.60	0.1729	0.0849 *
Mercury	33742-09-28 05:02 G	14045342.66	14045342.71	14045342.76	0.1846	0.1664
Mercury	33752-02-18 13:12 G	14048772.94	14048773.05	14048773.17	0.1854	0.0469
Venus	33754-12-06 07:26 G	14049794.64	14049794.81	14049794.99	0.1627	0.0058
Mercury	33760-09-14 19:55 G	14051904.17	14051904.33	14051904.48	0.1683	0.0389
Mercury	33761-07-10 21:21 G	14052203.28	14052203.39	14052203.50	0.1861	0.0743
Mercury	33770-02-04 22:05 G	14055334.29	14055334.42	14055334.55	0.1676	0.0942
Mercury	33782-03-29 05:02 G	14059769.69	14059769.71	14059769.73	0.1846	0.1816
Venus	33791-07-15 20:38 G	14063165.30	14063165.36	14063165.43	0.1906	0.1769
Mercury	33791-08-19 13:12 G	14063199.94	14063200.05	14063200.16	0.1853	0.0611
Mercury	33800-03-16 20:24 G	14066331.20	14066331.35	14066331.50	0.1683	0.0581
Mercury	33801-01-09 21:21 G	14066630.28	14066630.39	14066630.50	0.1861	0.0600
Mercury	33809-08-06 22:19 G	14069761.29	14069761.43	14069761.58	0.1676	0.0765
Mercury	33810-06-02 05:31 G	14070060.70	14070060.73	14070060.76	0.1869	0.1807
Venus	33820-10-03 19:41 G	14073837.15	14073837.32	14073837.49	0.1625	0.0216
Mercury	33831-02-18 13:12 G	14077626.94	14077627.05	14077627.16	0.1853	0.0757
Mercury	33839-09-15 20:53 G	14080758.23	14080758.37	14080758.51	0.1683	0.0772
Mercury	33840-07-10 21:21 G	14081057.28	14081057.39	14081057.51	0.1861	0.0446
Mercury	33849-02-04 23:02 G	14084188.31	14084188.46	14084188.61	0.1677	0.0558
Mercury	33849-12-01 05:17 G	14084487.67	14084487.72	14084487.77	0.1868	0.1677

Venus	33857-05-12 23:45 G	14087207.34	14087207.49	14087207.64	0.1910	0.0997
Mercury	33870-08-19 13:26 G	14092053.95	14092054.06	14092054.16	0.1853	0.0925
Mercury	33879-03-16 21:21 G	14095185.27	14095185.39	14095185.52	0.1684	0.0968
Mercury	33880-01-09 21:21 G	14095484.27	14095484.39	14095484.51	0.1861	0.0304
Venus	33886-08-01 07:55 G	14097879.66	14097879.83	14097880.00	0.1622	0.0459
Mercury	33888-08-05 23:45 G	14098615.33	14098615.49	14098615.64	0.1677	0.0370
Mercury	33889-06-01 05:31 G	14098914.66	14098914.73	14098914.79	0.1868	0.1525
Mercury	33910-02-18 13:12 G	14106480.95	14106481.05	14106481.15	0.1853	0.1054
Moon	33917-01-08 03:21 G	14108996.45	14108996.64	14108996.82	0.1799	0.0572
Earth	33917-01-08 11:31 G	14108996.79	14108996.98	14108997.17	0.1799	0.0324 *
Venus	33918-08-01 01:12 G	14109566.48	14109566.55	14109566.61	0.1630	0.1506
Mercury	33918-09-15 21:50 G	14109612.30	14109612.41	14109612.53	0.1684	0.1155
Mercury	33919-07-11 21:21 G	14109911.27	14109911.39	14109911.51	0.1861	0.0153
Venus	33923-03-11 01:55 G	14111249.41	14111249.58	14111249.76	0.1913	0.0196
Mercury	33928-02-06 00:14 G	14113042.35	14113042.51	14113042.67	0.1677	0.0182
Mercury	33928-12-01 05:31 G	14113341.65	14113341.73	14113341.81	0.1868	0.1367
Mercury	33937-06-28 02:24 G	14116472.53	14116472.60	14116472.67	0.1671	0.1502
Earth	33938-07-09 15:21 G	14116849.10	14116849.14	14116849.18	0.1744	0.1703
Mercury	33949-08-19 13:12 G	14120907.96	14120908.05	14120908.14	0.1853	0.1212
Venus	33952-05-29 19:55 G	14121922.17	14121922.33	14121922.48	0.1620	0.0711
Mercury	33958-03-16 22:33 G	14124039.35	14124039.44	14124039.53	0.1684	0.1351
Mercury	33959-01-09 21:21 G	14124338.27	14124338.39	14124338.51	0.1860	0.0013
Mercury	33967-08-07 00:43 G	14127469.37	14127469.53	14127469.69	0.1677	0.0043
Mercury	33968-06-01 05:17 G	14127768.64	14127768.72	14127768.81	0.1868	0.1239
Mercury	33976-12-27 02:53 G	14130899.52	14130899.62	14130899.72	0.1671	0.1317
Venus	33984-05-28 13:12 G	14133608.94	14133609.05	14133609.16	0.1627	0.1254
Venus	33989-01-05 04:33 G	14135291.52	14135291.69	14135291.85	0.1917	0.0614
Mercury	33989-02-17 13:26 G	14135334.98	14135335.06	14135335.14	0.1853	0.1368
Mercury	33997-09-14 23:02 G	14138466.40	14138466.46	14138466.52	0.1684	0.1545
Mercury	33998-07-10 21:21 G	14138765.27	14138765.39	14138765.51	0.1860	0.0149

35TH MILLENNIUM CE

This is a list of transits visible from Mars in the 35th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	34007-02-05 01:26	G	14141896.40	14141896.56	14141896.72	0.1677	0.0218	
Mercury	34007-12-01 05:31	G	14142195.63	14142195.73	14142195.82	0.1868	0.1079	
Mercury	34016-06-27 03:36	G	14145326.53	14145326.65	14145326.77	0.1671	0.1118	
Moon	34017-07-11 22:48	G	14145706.27	14145706.45	14145706.63	0.1738	0.0761	
Earth	34017-07-12 04:19	G	14145706.52	14145706.68	14145706.85	0.1738	0.0851	*
Venus	34018-03-27 08:38	G	14145964.72	14145964.86	14145965.00	0.1619	0.0945	
Mercury	34028-08-18 13:12	G	14149761.99	14149762.05	14149762.12	0.1852	0.1511	
Mercury	34038-01-08 21:21	G	14153192.28	14153192.39	14153192.51	0.1860	0.0297	
Mercury	34046-08-06 01:41	G	14156323.42	14156323.57	14156323.73	0.1677	0.0400	
Mercury	34047-06-01 05:31	G	14156622.63	14156622.73	14156622.83	0.1868	0.0928	
Venus	34050-03-26 01:41	G	14157651.43	14157651.57	14157651.70	0.1625	0.1002	
Venus	34054-11-02 06:29	G	14159333.66	14159333.77	14159333.89	0.1920	0.1452	
Mercury	34055-12-27 04:05	G	14159753.54	14159753.67	14159753.81	0.1671	0.0919	
Mercury	34068-02-17 13:26	G	14164189.01	14164189.06	14164189.11	0.1852	0.1660	
Mercury	34077-07-09 21:21	G	14167619.28	14167619.39	14167619.51	0.1860	0.0447	
Venus	34084-01-22 20:38	G	14170007.25	14170007.36	14170007.48	0.1617	0.1188	
Mercury	34086-02-04 02:24	G	14170750.46	14170750.60	14170750.75	0.1678	0.0607	
Mercury	34086-11-30 05:31	G	14171049.62	14171049.73	14171049.83	0.1868	0.0793	
Mercury	34095-06-27 04:33	G	14174180.55	14174180.69	14174180.83	0.1671	0.0737	

Mercury	34107-08-19 13:26 G	14178616.05	14178616.06	14178616.08	0.1852	0.1826
Venus	34116-01-22 13:41 G	14181693.91	14181694.07	14181694.22	0.1623	0.0746
Mercury	34117-01-08 21:21 G	14182046.28	14182046.39	14182046.51	0.1860	0.0591
Mercury	34125-08-06 03:07 G	14185177.49	14185177.63	14185177.76	0.1678	0.0796
Mercury	34126-06-01 05:31 G	14185476.62	14185476.73	14185476.84	0.1867	0.0637
Mercury	34134-12-27 05:17 G	14188607.57	14188607.72	14188607.87	0.1671	0.0531
Mercury	34135-10-22 13:41 G	14188907.06	14188907.07	14188907.08	0.1875	0.1866
Venus	34149-11-20 09:21 G	14194049.81	14194049.89	14194049.97	0.1615	0.1421
Mercury	34156-07-09 21:21 G	14196473.29	14196473.39	14196473.50	0.1860	0.0750
Mercury	34165-02-04 03:36 G	14199604.52	14199604.65	14199604.78	0.1678	0.0986
Mercury	34165-11-30 05:31 G	14199903.62	14199903.73	14199903.85	0.1867	0.0483
Mercury	34174-06-27 05:45 G	14203034.59	14203034.74	14203034.90	0.1672	0.0340
Mercury	34175-04-22 13:41 G	14203334.02	14203334.07	14203334.11	0.1875	0.1725
Venus	34181-11-19 02:09 G	14205736.42	14205736.59	14205736.75	0.1621	0.0503
Mercury	34196-01-08 21:21 G	14210900.29	14210900.39	14210900.50	0.1859	0.0898
Earth	34201-01-10 18:00 G	14212728.06	14212728.25	14212728.44	0.1790	0.0263
Moon	34201-01-10 19:55 G	14212728.16	14212728.33	14212728.51	0.1791	0.0173 *
Mercury	34204-08-06 04:05 G	14214031.56	14214031.67	14214031.78	0.1678	0.1186
Mercury	34205-06-01 05:31 G	14214330.61	14214330.73	14214330.84	0.1867	0.0348
Mercury	34213-12-27 06:14 G	14217461.60	14217461.76	14217461.92	0.1672	0.0156
Mercury	34214-10-22 13:41 G	14217761.01	14217761.07	14217761.14	0.1875	0.1562
Venus	34218-06-28 12:43 G	14219105.89	14219106.03	14219106.17	0.1915	0.1158
Earth	34222-07-12 02:38 G	14220580.51	14220580.61	14220580.71	0.1752	0.1474
Moon	34222-07-12 08:09 G	14220580.73	14220580.84	14220580.94	0.1752	0.1410
Mercury	34223-05-19 08:38 G	14220891.78	14220891.86	14220891.93	0.1666	0.1478
Mercury	34235-07-10 21:36 G	14225327.30	14225327.40	14225327.49	0.1859	0.1045
Mercury	34244-02-05 04:48 G	14228458.61	14228458.70	14228458.78	0.1678	0.1379
Mercury	34244-11-30 05:31 G	14228757.61	14228757.73	14228757.85	0.1867	0.0189
Venus	34247-09-17 14:24 G	14229778.93	14229779.10	14229779.27	0.1619	0.0253
Mercury	34253-06-27 06:57 G	14231888.63	14231888.79	14231888.95	0.1672	0.0052

Mercury	34254-04-22 13:41 G	14232187.99	14232188.07	14232188.14	0.1874	0.1429
Mercury	34262-11-17 09:07 G	14235318.78	14235318.88	14235318.98	0.1665	0.1278
Mercury	34275-01-08 21:36 G	14239754.31	14239754.40	14239754.49	0.1859	0.1200
Mercury	34283-08-06 05:17 G	14242885.66	14242885.72	14242885.77	0.1679	0.1565
Venus	34284-04-24 15:21 G	14243147.97	14243148.14	14243148.31	0.1919	0.0352
Mercury	34284-05-31 05:31 G	14243184.62	14243184.73	14243184.85	0.1867	0.0081
Mercury	34292-12-26 07:41 G	14246315.66	14246315.82	14246315.98	0.1672	0.0253
Mercury	34293-10-21 13:41 G	14246614.99	14246615.07	14246615.16	0.1874	0.1275
Moon	34301-07-15 13:41 G	14249437.94	14249438.07	14249438.21	0.1746	0.1099
Earth	34301-07-15 17:02 G	14249438.07	14249438.21	14249438.35	0.1746	0.1172 *
Mercury	34302-05-19 09:36 G	14249745.78	14249745.90	14249746.03	0.1666	0.1087
Venus	34313-07-16 02:38 G	14253821.44	14253821.61	14253821.78	0.1617	0.0012
Mercury	34314-07-10 21:36 G	14254181.32	14254181.40	14254181.48	0.1859	0.1348
Mercury	34323-12-01 05:31 G	14257611.61	14257611.73	14257611.85	0.1867	0.0110
Mercury	34332-06-27 07:55 G	14260742.68	14260742.83	14260742.99	0.1672	0.0433
Mercury	34333-04-22 13:41 G	14261041.98	14261042.07	14261042.17	0.1874	0.1119
Mercury	34341-11-17 10:19 G	14264172.79	14264172.93	14264173.07	0.1666	0.0888
Venus	34350-02-20 17:31 G	14267190.06	14267190.23	14267190.40	0.1922	0.0486
Mercury	34354-01-08 21:36 G	14268608.33	14268608.40	14268608.47	0.1859	0.1496
Mercury	34363-06-01 05:31 G	14272038.62	14272038.73	14272038.85	0.1866	0.0276
Mercury	34371-12-27 08:38 G	14275169.72	14275169.86	14275170.01	0.1672	0.0641
Mercury	34372-10-21 13:41 G	14275468.97	14275469.07	14275469.17	0.1874	0.0978
Venus	34379-05-13 14:53 G	14277863.95	14277864.12	14277864.30	0.1615	0.0235
Mercury	34381-05-18 10:48 G	14278599.81	14278599.95	14278600.10	0.1666	0.0695
Mercury	34393-07-09 21:36 G	14283035.35	14283035.40	14283035.45	0.1859	0.1659
Mercury	34402-11-30 05:45 G	14286465.62	14286465.74	14286465.85	0.1866	0.0423
Mercury	34411-06-27 09:21 G	14289596.75	14289596.89	14289597.02	0.1672	0.0835
Mercury	34412-04-21 13:41 G	14289895.97	14289896.07	14289896.18	0.1874	0.0831
Venus	34415-12-18 19:41 G	14291232.19	14291232.32	14291232.45	0.1925	0.1313
Mercury	34420-11-16 11:31 G	14293026.83	14293026.98	14293027.13	0.1666	0.0495

Mercury	34433-01-07 21:36 G	14297462.38	14297462.40	14297462.43	0.1858	0.1805
Mercury	34442-05-31 05:31 G	14300892.62	14300892.73	14300892.85	0.1866	0.0562
Venus	34445-03-10 03:50 G	14301906.49	14301906.66	14301906.82	0.1614	0.0461
Mercury	34450-12-26 09:50 G	14304023.78	14304023.91	14304024.03	0.1673	0.1021
Mercury	34451-10-21 13:55 G	14304322.97	14304323.08	14304323.19	0.1873	0.0663
Mercury	34460-05-17 12:00 G	14307453.85	14307454.00	14307454.16	0.1667	0.0301
Mercury	34469-10-07 14:24 G	14310884.07	14310884.10	14310884.13	0.1660	0.1625
Venus	34477-03-08 20:24 G	14313593.28	14313593.35	14313593.42	0.1620	0.1475
Mercury	34481-11-29 05:45 G	14315319.63	14315319.74	14315319.85	0.1866	0.0724
Earth	34485-01-12 02:24 G	14316459.41	14316459.60	14316459.79	0.1782	0.0124
Moon	34485-01-12 07:12 G	14316459.59	14316459.80	14316460.00	0.1782	0.0171 *
Mercury	34490-06-26 10:19 G	14318450.83	14318450.93	14318451.04	0.1673	0.1227
Mercury	34491-04-21 13:41 G	14318749.96	14318750.07	14318750.19	0.1873	0.0532
Mercury	34499-11-16 12:43 G	14321880.87	14321881.03	14321881.19	0.1666	0.0105
Mercury	34500-09-11 21:50 G	14322180.38	14322180.41	14322180.45	0.1881	0.1768
Moon	34506-07-14 14:09 G	14324311.93	14324312.09	14324312.25	0.1760	0.1136
Earth	34506-07-14 13:41 G	14324311.94	14324312.07	14324312.21	0.1760	0.1255 *
Mercury	34509-04-08 14:38 G	14325311.04	14325311.11	14325311.19	0.1660	0.1441
Venus	34511-01-06 16:05 G	14325949.01	14325949.17	14325949.33	0.1612	0.0698
Mercury	34521-05-31 05:45 G	14329746.64	14329746.74	14329746.84	0.1866	0.0876
Mercury	34529-12-26 11:02 G	14332877.88	14332877.96	14332878.04	0.1673	0.1426
Mercury	34530-10-21 13:55 G	14333176.96	14333177.08	14333177.19	0.1873	0.0377
Mercury	34539-05-18 13:12 G	14336307.89	14336308.05	14336308.21	0.1667	0.0092
Mercury	34540-03-12 21:50 G	14336607.36	14336607.41	14336607.47	0.1880	0.1619
Venus	34543-01-05 08:38 G	14337635.75	14337635.86	14337635.97	0.1618	0.1227
Mercury	34548-10-07 15:36 G	14339738.04	14339738.15	14339738.25	0.1661	0.1230
Mercury	34560-11-29 05:45 G	14344173.64	14344173.74	14344173.84	0.1866	0.1022
Mercury	34569-06-26 11:17 G	14347304.93	14347304.97	14347305.02	0.1673	0.1606
Mercury	34570-04-21 13:55 G	14347603.96	14347604.08	14347604.20	0.1873	0.0213
Venus	34576-11-03 05:02 G	14349991.57	14349991.71	14349991.85	0.1610	0.0925

Mercury	34578-11-16 13:55 G	14350734.92	14350735.08	14350735.24	0.1667	0.0294
Venus	34579-08-13 02:09 G	14351004.47	14351004.59	14351004.72	0.1920	0.1337
Mercury	34579-09-11 22:05 G	14351034.34	14351034.42	14351034.49	0.1880	0.1469
Earth	34585-07-17 04:33 G	14353169.59	14353169.69	14353169.79	0.1754	0.1478
Moon	34585-07-17 12:00 G	14353169.90	14353170.00	14353170.10	0.1754	0.1510
Mercury	34588-04-07 16:05 G	14354165.04	14354165.17	14354165.29	0.1661	0.1034
Mercury	34600-05-31 05:45 G	14358600.65	14358600.74	14358600.83	0.1865	0.1180
Venus	34608-11-02 21:21 G	14361678.25	14361678.39	14361678.52	0.1616	0.0992
Mercury	34609-10-21 13:55 G	14362030.96	14362031.08	14362031.19	0.1873	0.0089
Mercury	34618-05-18 14:24 G	14365161.95	14365162.10	14365162.25	0.1667	0.0485
Mercury	34619-03-13 21:50 G	14365461.33	14365461.41	14365461.50	0.1880	0.1321
Mercury	34627-10-08 16:33 G	14368592.05	14368592.19	14368592.33	0.1661	0.0845
Mercury	34639-11-30 05:45 G	14373027.66	14373027.74	14373027.83	0.1865	0.1340
Venus	34642-09-01 17:45 G	14374034.12	14374034.24	14374034.36	0.1609	0.1154
Venus	34645-06-10 04:19 G	14375046.51	14375046.68	14375046.85	0.1924	0.0497
Mercury	34649-04-21 13:55 G	14376457.96	14376458.08	14376458.19	0.1873	0.0096
Mercury	34657-11-16 15:07 G	14379588.98	14379589.13	14379589.27	0.1667	0.0688
Mercury	34658-09-11 22:05 G	14379888.33	14379888.42	14379888.51	0.1880	0.1161
Mercury	34667-04-08 17:17 G	14383019.07	14383019.22	14383019.37	0.1661	0.0638
Venus	34674-08-31 09:36 G	14385720.75	14385720.90	14385721.06	0.1615	0.0745
Mercury	34679-05-31 05:45 G	14387454.67	14387454.74	14387454.81	0.1865	0.1479
Mercury	34688-10-20 13:55 G	14390884.97	14390885.08	14390885.20	0.1872	0.0258
Mercury	34697-05-17 15:36 G	14394016.02	14394016.15	14394016.29	0.1667	0.0884
Mercury	34698-03-12 22:05 G	14394315.32	14394315.42	14394315.51	0.1880	0.1021
Mercury	34706-10-08 17:45 G	14397446.09	14397446.24	14397446.40	0.1661	0.0444
Venus	34708-06-30 06:14 G	14398076.68	14398076.76	14398076.84	0.1607	0.1390
Venus	34711-04-08 06:43 G	14399088.60	14399088.78	14399088.95	0.1927	0.0333
Mercury	34718-11-30 06:00 G	14401881.69	14401881.75	14401881.80	0.1865	0.1647
Mercury	34728-04-21 13:55 G	14405311.96	14405312.08	14405312.19	0.1872	0.0383
Mercury	34736-11-16 16:05 G	14408443.05	14408443.17	14408443.29	0.1667	0.1079

Mercury	34737-09-11 22:05 G	14408742.32	14408742.42	14408742.52	0.1880	0.0860
Venus	34740-06-28 22:05 G	14409763.26	14409763.42	14409763.59	0.1613	0.0511
Mercury	34746-04-08 18:29 G	14411873.11	14411873.27	14411873.43	0.1661	0.0255
Mercury	34755-08-29 20:38 G	14415303.31	14415303.36	14415303.41	0.1656	0.1569
Mercury	34758-05-31 06:00 G	14416308.72	14416308.75	14416308.78	0.1865	0.1798
Mercury	34767-10-21 13:55 G	14419738.97	14419739.08	14419739.19	0.1872	0.0543
Moon	34769-01-15 04:48 G	14420190.51	14420190.70	14420190.89	0.1773	0.0166
Earth	34769-01-15 12:43 G	14420190.83	14420191.03	14420191.22	0.1773	0.0094 *
Mercury	34776-05-17 16:48 G	14422870.10	14422870.20	14422870.30	0.1668	0.1275
Venus	34777-02-02 08:38 G	14423130.72	14423130.86	14423130.99	0.1929	0.1190
Mercury	34777-03-12 22:05 G	14423169.31	14423169.42	14423169.53	0.1879	0.0712
Mercury	34785-10-07 19:12 G	14426300.14	14426300.30	14426300.46	0.1662	0.0057
Moon	34790-07-16 16:33 G	14428043.04	14428043.19	14428043.34	0.1769	0.1051
Earth	34790-07-17 00:00 G	14428043.35	14428043.50	14428043.65	0.1769	0.1064
Mercury	34795-02-27 21:07 G	14429730.29	14429730.38	14429730.47	0.1656	0.1380
Venus	34806-04-26 10:48 G	14433805.78	14433805.95	14433806.12	0.1611	0.0272
Mercury	34807-04-21 14:09 G	14434165.98	14434166.09	14434166.19	0.1872	0.0709
Mercury	34815-11-16 17:31 G	14437297.16	14437297.23	14437297.30	0.1668	0.1480
Mercury	34816-09-10 22:05 G	14437596.31	14437596.42	14437596.53	0.1879	0.0558
Mercury	34825-04-07 19:41 G	14440727.16	14440727.32	14440727.48	0.1662	0.0152
Mercury	34826-02-01 06:14 G	14441026.73	14441026.76	14441026.79	0.1886	0.1821
Mercury	34834-08-28 21:50 G	14444157.30	14444157.41	14444157.52	0.1656	0.1177
Mercury	34846-10-20 13:55 G	14448592.98	14448593.08	14448593.19	0.1872	0.0847
Mercury	34856-03-11 22:05 G	14452023.31	14452023.42	14452023.54	0.1879	0.0406
Mercury	34864-10-06 20:09 G	14455154.18	14455154.34	14455154.50	0.1662	0.0344
Mercury	34865-08-02 06:14 G	14455453.71	14455453.76	14455453.82	0.1886	0.1660
Moon	34869-07-19 10:33 G	14456900.81	14456900.94	14456901.06	0.1763	0.1393
Venus	34872-02-21 23:31 G	14457848.31	14457848.48	14457848.65	0.1609	0.0047
Mercury	34874-02-26 22:33 G	14458584.31	14458584.44	14458584.57	0.1656	0.0973
Mercury	34886-04-20 13:55 G	14463019.98	14463020.08	14463020.18	0.1872	0.1004

Mercury	34895-09-10 22:05 G	14466450.31	14466450.42	14466450.54	0.1879	0.0254
Mercury	34904-04-07 20:53 G	14469581.22	14469581.37	14469581.52	0.1662	0.0549
Mercury	34905-02-01 06:14 G	14469880.69	14469880.76	14469880.82	0.1886	0.1529
Mercury	34913-08-28 22:48 G	14473011.31	14473011.45	14473011.60	0.1656	0.0789
Mercury	34925-10-20 14:09 G	14477447.00	14477447.09	14477447.18	0.1871	0.1173
Mercury	34935-03-12 22:05 G	14480877.30	14480877.42	14480877.54	0.1879	0.0108
Venus	34937-12-20 12:14 G	14481890.84	14481891.01	14481891.18	0.1608	0.0187
Venus	34940-09-27 15:07 G	14482903.02	14482903.13	14482903.24	0.1926	0.1486
Mercury	34943-10-07 21:21 G	14484008.25	14484008.39	14484008.54	0.1662	0.0748
Mercury	34944-08-02 06:14 G	14484307.68	14484307.76	14484307.84	0.1886	0.1362
Mercury	34953-02-26 23:45 G	14487438.34	14487438.49	14487438.64	0.1656	0.0577
Mercury	34965-04-20 13:55 G	14491874.00	14491874.08	14491874.17	0.1871	0.1305
Mercury	34974-09-10 22:19 G	14495304.31	14495304.43	14495304.54	0.1879	0.0080
Mercury	34983-04-07 22:05 G	14498435.28	14498435.42	14498435.55	0.1662	0.0940
Mercury	34984-02-01 06:14 G	14498734.67	14498734.76	14498734.85	0.1885	0.1210
Mercury	34992-08-28 00:14 G	14501865.35	14501865.51	14501865.67	0.1656	0.0380

36TH MILLENNIUM CE

This is a list of transits visible from Mars in the 36th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	35003-10-19 01:12 G	14505933.38	14505933.55	14505933.72	0.1606	0.0408		
Mercury	35004-10-20 14:09 G	14506301.02	14506301.09	14506301.16	0.1871	0.1470		
Venus	35006-07-26 17:31 G	14506945.07	14506945.23	14506945.40	0.1928	0.0667		

Mercury	35014-03-12 22:05 G	14509731.31	14509731.42	14509731.54	0.1878	0.0216
Mercury	35022-10-07 22:33 G	14512862.33	14512862.44	14512862.56	0.1662	0.1145
Mercury	35023-08-03 06:14 G	14513161.67	14513161.76	14513161.86	0.1886	0.1066
Mercury	35032-02-28 00:43 G	14516292.37	14516292.53	14516292.69	0.1657	0.0191
Venus	35035-10-17 17:02 G	14517620.15	14517620.21	14517620.27	0.1612	0.1500
Mercury	35041-07-20 03:07 G	14519722.56	14519722.63	14519722.69	0.1651	0.1507
Mercury	35044-04-20 14:09 G	14520728.04	14520728.09	14520728.15	0.1871	0.1633
Earth	35053-01-18 00:14 G	14523922.32	14523922.51	14523922.70	0.1765	0.0342
Moon	35053-01-18 02:53 G	14523922.46	14523922.62	14523922.79	0.1765	0.0640 *
Mercury	35053-09-10 22:19 G	14524158.31	14524158.43	14524158.54	0.1878	0.0365
Mercury	35062-04-07 23:17 G	14527289.37	14527289.47	14527289.56	0.1663	0.1339
Mercury	35063-02-01 06:14 G	14527588.66	14527588.76	14527588.86	0.1885	0.0911
Venus	35069-08-15 13:55 G	14529975.92	14529976.08	14529976.24	0.1605	0.0639
Mercury	35071-08-29 01:26 G	14530719.40	14530719.56	14530719.72	0.1657	0.0019
Venus	35072-05-22 19:12 G	14530987.12	14530987.30	14530987.47	0.1931	0.0223
Earth	35074-07-19 07:55 G	14531774.67	14531774.83	14531774.99	0.1777	0.0960
Moon	35074-07-19 14:09 G	14531774.92	14531775.09	14531775.26	0.1777	0.0566 *
Mercury	35081-01-18 03:36 G	14534149.55	14534149.65	14534149.75	0.1651	0.1307
Mercury	35083-10-20 14:09 G	14535155.05	14535155.09	14535155.12	0.1871	0.1776
Mercury	35093-03-11 22:19 G	14538585.31	14538585.43	14538585.54	0.1878	0.0520
Venus	35101-08-15 05:31 G	14541662.62	14541662.73	14541662.84	0.1610	0.1255
Mercury	35101-10-07 23:45 G	14541716.43	14541716.49	14541716.55	0.1663	0.1532
Mercury	35102-08-03 06:29 G	14542015.66	14542015.77	14542015.87	0.1885	0.0751
Mercury	35111-02-28 02:09 G	14545146.43	14545146.59	14545146.75	0.1657	0.0220
Mercury	35120-07-20 04:19 G	14548576.56	14548576.68	14548576.80	0.1651	0.1109
Mercury	35132-09-10 22:19 G	14553012.32	14553012.43	14553012.54	0.1878	0.0672
Venus	35135-06-14 02:38 G	14554018.46	14554018.61	14554018.76	0.1603	0.0868
Venus	35138-03-20 21:21 G	14555029.25	14555029.39	14555029.54	0.1933	0.1067
Mercury	35142-02-01 06:14 G	14556442.65	14556442.76	14556442.87	0.1885	0.0613
Mercury	35150-08-29 02:38 G	14559573.45	14559573.61	14559573.76	0.1657	0.0405

Mercury	35151-06-24 14:24 G	14559873.09	14559873.10	14559873.12	0.1892	0.1875
Moon	35153-07-22 22:33 G	14560632.39	14560632.44	14560632.49	0.1771	0.1697
Mercury	35160-01-19 04:48 G	14563003.57	14563003.70	14563003.84	0.1651	0.0909
Venus	35167-06-12 18:14 G	14565705.13	14565705.26	14565705.39	0.1608	0.1026
Mercury	35172-03-11 22:19 G	14567439.32	14567439.43	14567439.53	0.1878	0.0819
Mercury	35181-08-02 06:29 G	14570869.65	14570869.77	14570869.88	0.1885	0.0450
Mercury	35190-02-27 03:21 G	14574000.49	14574000.64	14574000.79	0.1657	0.0615
Mercury	35190-12-23 14:24 G	14574300.06	14574300.10	14574300.14	0.1892	0.1738
Mercury	35199-07-20 05:17 G	14577430.58	14577430.72	14577430.87	0.1651	0.0718
Venus	35201-04-10 15:36 G	14578061.03	14578061.15	14578061.28	0.1602	0.1092
Mercury	35211-09-10 22:19 G	14581866.33	14581866.43	14581866.53	0.1878	0.0989
Mercury	35221-01-31 06:29 G	14585296.65	14585296.77	14585296.88	0.1884	0.0301
Mercury	35229-08-28 03:50 G	14588427.52	14588427.66	14588427.80	0.1657	0.0809
Mercury	35230-06-23 14:24 G	14588727.04	14588727.10	14588727.16	0.1892	0.1585
Venus	35233-04-09 06:43 G	14589747.63	14589747.78	14589747.94	0.1607	0.0788
Mercury	35239-01-18 06:14 G	14591857.60	14591857.76	14591857.91	0.1652	0.0513
Mercury	35251-03-11 22:19 G	14596293.34	14596293.43	14596293.52	0.1877	0.1130
Mercury	35260-08-01 06:14 G	14599723.65	14599723.76	14599723.88	0.1885	0.0158
Venus	35267-02-06 04:05 G	14602103.58	14602103.67	14602103.77	0.1601	0.1326
Mercury	35269-02-26 04:19 G	14602854.55	14602854.68	14602854.81	0.1657	0.1000
Mercury	35269-12-22 14:24 G	14603154.03	14603154.10	14603154.18	0.1891	0.1421
Mercury	35278-07-19 06:43 G	14606284.62	14606284.78	14606284.94	0.1652	0.0312
Mercury	35287-12-09 08:53 G	14609714.85	14609714.87	14609714.89	0.1646	0.1632
Mercury	35290-09-09 22:19 G	14610720.35	14610720.43	14610720.52	0.1877	0.1287
Venus	35299-02-04 19:41 G	14613790.15	14613790.32	14613790.48	0.1605	0.0563
Mercury	35300-01-31 06:29 G	14614150.65	14614150.77	14614150.88	0.1884	0.0069
Venus	35301-11-13 04:05 G	14614801.58	14614801.67	14614801.76	0.1930	0.1646
Mercury	35308-08-28 05:02 G	14617281.60	14617281.71	14617281.82	0.1658	0.1206
Mercury	35309-06-23 14:24 G	14617581.01	14617581.10	14617581.18	0.1891	0.1284
Mercury	35318-01-18 07:12 G	14620711.64	14620711.80	14620711.96	0.1652	0.0120

Mercury	35327-06-10 09:21 G	14624141.81	14624141.89	14624141.97	0.1646	0.1444
Mercury	35330-03-11 22:19 G	14625147.36	14625147.43	14625147.51	0.1877	0.1448
Venus	35332-12-04 17:17 G	14626146.18	14626146.22	14626146.26	0.1599	0.1542
Earth	35337-01-20 12:29 G	14627653.84	14627654.02	14627654.20	0.1756	0.0613
Moon	35337-01-20 17:45 G	14627654.07	14627654.24	14627654.41	0.1757	0.0955 *
Mercury	35339-08-02 06:29 G	14628577.65	14628577.77	14628577.88	0.1884	0.0171
Mercury	35348-02-27 05:45 G	14631708.65	14631708.74	14631708.82	0.1658	0.1409
Mercury	35348-12-22 14:24 G	14632008.01	14632008.10	14632008.19	0.1891	0.1126
Mercury	35357-07-19 07:55 G	14635138.67	14635138.83	14635138.99	0.1652	0.0084
Earth	35358-07-21 14:09 G	14635505.92	14635506.09	14635506.25	0.1786	0.0937
Moon	35358-07-21 14:38 G	14635505.92	14635506.11	14635506.31	0.1786	0.0647 *
Venus	35364-12-03 08:24 G	14637832.68	14637832.85	14637833.02	0.1604	0.0331
Mercury	35366-12-09 10:05 G	14638568.81	14638568.92	14638569.03	0.1647	0.1234
Venus	35367-09-10 05:31 G	14638843.57	14638843.73	14638843.89	0.1933	0.0768
Mercury	35369-09-09 22:19 G	14639574.37	14639574.43	14639574.49	0.1877	0.1598
Mercury	35379-01-31 06:14 G	14643004.65	14643004.76	14643004.88	0.1884	0.0316
Mercury	35387-08-28 06:00 G	14646135.71	14646135.75	14646135.80	0.1658	0.1591
Mercury	35388-06-22 14:24 G	14646435.00	14646435.10	14646435.20	0.1891	0.0967
Mercury	35397-01-17 08:24 G	14649565.70	14649565.85	14649566.01	0.1652	0.0288
Mercury	35406-06-10 10:33 G	14652995.82	14652995.94	14652996.07	0.1647	0.1039
Mercury	35409-03-11 22:19 G	14654001.39	14654001.43	14654001.47	0.1877	0.1747
Mercury	35418-08-02 06:29 G	14657431.65	14657431.77	14657431.88	0.1884	0.0476
Mercury	35427-12-23 14:24 G	14660862.00	14660862.10	14660862.20	0.1891	0.0828
Venus	35430-10-01 21:21 G	14661875.22	14661875.39	14661875.57	0.1603	0.0110
Venus	35433-07-08 07:41 G	14662885.65	14662885.82	14662886.00	0.1935	0.0092
Mercury	35436-07-19 09:07 G	14663992.72	14663992.88	14663993.03	0.1652	0.0478
Mercury	35445-12-09 11:17 G	14667422.83	14667422.97	14667423.11	0.1647	0.0844
Mercury	35458-01-31 06:29 G	14671858.66	14671858.77	14671858.88	0.1884	0.0626
Mercury	35467-06-23 14:24 G	14675288.99	14675289.10	14675289.21	0.1891	0.0671
Mercury	35476-01-18 09:36 G	14678419.76	14678419.90	14678420.05	0.1653	0.0682

Mercury	35485-06-09 11:45 G	14681849.85	14681849.99	14681850.14	0.1647	0.0642
Venus	35496-07-29 10:05 G	14685917.75	14685917.92	14685918.09	0.1601	0.0122
Mercury	35497-08-01 06:29 G	14686285.66	14686285.77	14686285.87	0.1884	0.0778
Venus	35499-05-05 08:38 G	14686927.71	14686927.86	14686928.01	0.1937	0.1010
Mercury	35506-12-23 14:38 G	14689715.99	14689716.11	14689716.22	0.1890	0.0507
Mercury	35515-07-20 10:19 G	14692846.79	14692846.93	14692847.06	0.1653	0.0878
Mercury	35516-05-14 22:33 G	14693146.41	14693146.44	14693146.47	0.1897	0.1813
Mercury	35524-12-09 12:29 G	14696276.86	14696277.02	14696277.18	0.1647	0.0442
Mercury	35537-01-31 06:29 G	14700712.67	14700712.77	14700712.87	0.1883	0.0935
Earth	35542-01-20 12:14 G	14702528.00	14702528.01	14702528.02	0.1742	0.1736
Mercury	35546-06-23 14:24 G	14704142.99	14704143.10	14704143.21	0.1890	0.0371
Mercury	35555-01-18 10:48 G	14707273.83	14707273.95	14707274.07	0.1653	0.1070
Mercury	35555-11-13 22:33 G	14707573.39	14707573.44	14707573.50	0.1897	0.1652
Venus	35562-05-27 23:02 G	14709960.29	14709960.46	14709960.63	0.1600	0.0351
Mercury	35564-06-09 12:57 G	14710703.88	14710704.04	14710704.20	0.1647	0.0251
Venus	35565-03-02 10:48 G	14710969.91	14710969.95	14710969.99	0.1939	0.1883
Mercury	35573-10-30 15:21 G	14714134.09	14714134.14	14714134.19	0.1642	0.1559
Mercury	35576-08-01 06:29 G	14715139.67	14715139.77	14715139.86	0.1883	0.1091
Mercury	35585-12-22 14:24 G	14718569.99	14718570.10	14718570.22	0.1890	0.0212
Venus	35594-05-26 14:09 G	14721647.05	14721647.09	14721647.14	0.1605	0.1540
Mercury	35594-07-19 11:17 G	14721700.87	14721700.97	14721701.08	0.1653	0.1272
Mercury	35595-05-14 22:33 G	14722000.37	14722000.44	14722000.51	0.1897	0.1508
Mercury	35603-12-09 13:41 G	14725130.91	14725131.07	14725131.23	0.1647	0.0045
Mercury	35613-04-30 15:50 G	14728561.07	14728561.16	14728561.24	0.1642	0.1374
Mercury	35616-01-31 06:29 G	14729566.68	14729566.77	14729566.85	0.1883	0.1239
Moon	35621-01-22 18:14 G	14731385.10	14731385.26	14731385.43	0.1748	0.0899
Earth	35621-01-23 01:26 G	14731385.40	14731385.56	14731385.73	0.1748	0.0904 *
Mercury	35625-06-22 14:38 G	14732996.99	14732997.11	14732997.22	0.1890	0.0086
Venus	35628-03-24 11:45 G	14734002.83	14734002.99	14734003.16	0.1599	0.0575
Mercury	35634-01-17 12:00 G	14736127.93	14736128.00	14736128.07	0.1653	0.1476

Mercury	35634-11-12 22:33 G	14736427.36	14736427.44	14736427.52	0.1897	0.1355
Moon	35642-07-23 11:17 G	14739236.81	14739236.97	14739237.12	0.1796	0.0981
Earth	35642-07-23 18:14 G	14739237.10	14739237.26	14739237.42	0.1795	0.1010 *
Mercury	35643-06-09 14:09 G	14739557.93	14739558.09	14739558.26	0.1647	0.0161
Mercury	35652-10-29 16:33 G	14742988.07	14742988.19	14742988.30	0.1642	0.1163
Mercury	35655-08-01 06:29 G	14743993.69	14743993.77	14743993.85	0.1883	0.1401
Venus	35660-03-23 02:38 G	14745689.52	14745689.61	14745689.71	0.1603	0.1302
Venus	35662-12-28 15:50 G	14746700.09	14746700.16	14746700.23	0.1934	0.1755
Mercury	35664-12-21 14:24 G	14747423.98	14747424.10	14747424.22	0.1890	0.0090
Mercury	35674-05-13 22:33 G	14750854.35	14750854.44	14750854.53	0.1897	0.1198
Mercury	35682-12-08 14:53 G	14753984.96	14753985.12	14753985.28	0.1648	0.0349
Mercury	35692-04-29 17:02 G	14757415.08	14757415.21	14757415.34	0.1642	0.0966
Venus	35694-01-20 00:29 G	14758045.37	14758045.52	14758045.67	0.1598	0.0805
Mercury	35695-01-30 06:29 G	14758420.70	14758420.77	14758420.83	0.1883	0.1549
Mercury	35704-06-22 14:24 G	14761850.99	14761851.10	14761851.22	0.1890	0.0252
Mercury	35713-11-12 22:33 G	14765281.34	14765281.44	14765281.54	0.1896	0.1048
Mercury	35722-06-09 15:21 G	14768411.99	14768412.14	14768412.30	0.1648	0.0551
Venus	35726-01-19 15:36 G	14769732.02	14769732.15	14769732.28	0.1602	0.1078
Venus	35728-10-25 17:31 G	14770742.08	14770742.23	14770742.39	0.1936	0.0866
Mercury	35731-10-30 17:31 G	14771842.09	14771842.23	14771842.38	0.1643	0.0776
Mercury	35734-08-01 06:29 G	14772847.72	14772847.77	14772847.81	0.1883	0.1708
Mercury	35743-12-22 14:38 G	14776277.99	14776278.11	14776278.22	0.1889	0.0420
Mercury	35753-05-13 22:33 G	14779708.33	14779708.44	14779708.54	0.1896	0.0907
Venus	35759-11-18 13:41 G	14782087.94	14782088.07	14782088.20	0.1597	0.1023
Mercury	35761-12-08 16:05 G	14782839.03	14782839.17	14782839.31	0.1648	0.0750
Mercury	35771-04-30 18:14 G	14786269.11	14786269.26	14786269.42	0.1643	0.0568
Mercury	35774-01-30 06:29 G	14787274.76	14787274.77	14787274.78	0.1882	0.1863
Mercury	35783-06-22 14:24 G	14790704.99	14790705.10	14790705.21	0.1890	0.0549
Venus	35791-11-17 04:19 G	14793774.54	14793774.68	14793774.83	0.1600	0.0848
Mercury	35792-11-11 22:33 G	14794135.33	14794135.44	14794135.55	0.1896	0.0736

Venus	35794-08-22 18:43 G	14794784.10	14794784.28	14794784.45	0.1938	0.0053
Mercury	35801-06-09 16:33 G	14797266.06	14797266.19	14797266.32	0.1648	0.0945
Mercury	35810-10-30 18:57 G	14800696.13	14800696.29	14800696.45	0.1643	0.0366
Mercury	35822-12-22 14:24 G	14805131.99	14805132.10	14805132.21	0.1889	0.0716
Venus	35825-09-16 02:24 G	14806130.50	14806130.60	14806130.71	0.1596	0.1252
Earth	35826-01-23 03:21 G	14806259.53	14806259.64	14806259.76	0.1735	0.1350
Moon	35826-01-23 11:02 G	14806259.84	14806259.96	14806260.08	0.1735	0.1336
Mercury	35832-05-13 22:33 G	14808562.32	14808562.44	14808562.55	0.1896	0.0598
Mercury	35840-12-08 17:17 G	14811693.10	14811693.22	14811693.33	0.1648	0.1149
Mercury	35841-10-04 06:29 G	14811992.77	14811992.77	14811992.78	0.1903	0.1901
Mercury	35850-04-30 19:26 G	14815123.14	14815123.31	14815123.47	0.1643	0.0184
Venus	35857-09-14 17:31 G	14817817.07	14817817.23	14817817.39	0.1599	0.0625
Mercury	35859-09-20 21:36 G	14818553.34	14818553.40	14818553.47	0.1638	0.1492
Venus	35860-06-19 20:38 G	14818826.21	14818826.36	14818826.51	0.1940	0.0930
Mercury	35862-06-22 14:38 G	14819559.00	14819559.11	14819559.21	0.1889	0.0880
Mercury	35871-11-12 22:33 G	14822989.32	14822989.44	14822989.55	0.1896	0.0441
Mercury	35880-06-08 17:45 G	14826120.15	14826120.24	14826120.33	0.1648	0.1344
Mercury	35881-04-04 06:29 G	14826419.73	14826419.77	14826419.82	0.1902	0.1746
Mercury	35889-10-29 20:09 G	14829550.18	14829550.34	14829550.50	0.1643	0.0035
Venus	35891-07-14 15:21 G	14830173.08	14830173.14	14830173.21	0.1595	0.1470
Mercury	35899-03-21 22:05 G	14832980.33	14832980.42	14832980.52	0.1638	0.1295
Mercury	35901-12-22 14:24 G	14833986.00	14833986.10	14833986.20	0.1889	0.1017
Earth	35905-01-26 15:36 G	14835117.02	14835117.15	14835117.28	0.1740	0.1227
Moon	35905-01-26 17:45 G	14835117.13	14835117.24	14835117.36	0.1740	0.1312 *
Mercury	35911-05-14 22:33 G	14837416.32	14837416.44	14837416.55	0.1896	0.0279
Mercury	35919-12-09 18:29 G	14840547.21	14840547.27	14840547.32	0.1649	0.1542
Mercury	35920-10-04 06:43 G	14840846.71	14840846.78	14840846.84	0.1902	0.1587
Venus	35923-07-14 06:14 G	14841859.59	14841859.76	14841859.92	0.1598	0.0395
Venus	35926-04-17 21:21 G	14842868.35	14842868.39	14842868.43	0.1942	0.1875
Earth	35926-07-26 19:26 G	14842968.16	14842968.31	14842968.45	0.1805	0.1200

Moon	35926-07-27 02:53 G	14842968.46	14842968.62	14842968.78	0.1804	0.0943
Mercury	35929-04-30 20:38 G	14843977.20	14843977.36	14843977.52	0.1643	0.0232
Mercury	35938-09-20 22:48 G	14847407.33	14847407.45	14847407.57	0.1638	0.1092
Mercury	35941-06-22 14:24 G	14848413.01	14848413.10	14848413.19	0.1889	0.1180
Mercury	35950-11-12 22:33 G	14851843.32	14851843.44	14851843.55	0.1895	0.0143
Mercury	35960-04-04 06:29 G	14855273.70	14855273.77	14855273.85	0.1902	0.1448
Mercury	35968-10-29 21:07 G	14858404.23	14858404.38	14858404.54	0.1643	0.0422
Mercury	35978-03-21 23:31 G	14861834.34	14861834.48	14861834.61	0.1638	0.0891
Mercury	35980-12-21 14:38 G	14862840.02	14862840.11	14862840.19	0.1889	0.1346
Venus	35989-05-10 19:12 G	14865902.13	14865902.30	14865902.48	0.1597	0.0174
Mercury	35990-05-13 22:19 G	14866270.32	14866270.43	14866270.55	0.1895	0.0073
Mercury	35999-10-04 06:43 G	14869700.69	14869700.78	14869700.86	0.1902	0.1282

37TH MILLENNIUM CE

This is a list of transits visible from Mars in the 37th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	36008-04-29 21:50 G		14872831.26	14872831.41	14872831.56	0.1643	0.0629	
Mercury	36017-09-20 00:00 G		14876261.35	14876261.50	14876261.65	0.1638	0.0698	
Mercury	36020-06-21 14:24 G		14877267.03	14877267.10	14877267.17	0.1889	0.1480	
Venus	36024-02-13 03:36 G		14878598.60	14878598.65	14878598.70	0.1938	0.1851	
Mercury	36029-11-11 22:33 G		14880697.32	14880697.44	14880697.56	0.1895	0.0191	
Mercury	36039-04-04 06:29 G		14884127.68	14884127.77	14884127.87	0.1901	0.1135	
Mercury	36047-10-29 22:33 G		14887258.30	14887258.44	14887258.58	0.1644	0.0830	

Venus	36055-03-08 08:09 G	14889944.67	14889944.84	14889945.01	0.1596	0.0052
Mercury	36057-03-21 00:43 G	14890688.37	14890688.53	14890688.68	0.1638	0.0492
Mercury	36059-12-21 14:24 G	14891694.05	14891694.10	14891694.16	0.1888	0.1651
Mercury	36069-05-12 22:19 G	14895124.32	14895124.43	14895124.55	0.1895	0.0339
Mercury	36078-10-03 06:29 G	14898554.67	14898554.77	14898554.87	0.1902	0.0982
Mercury	36087-04-29 23:02 G	14901685.33	14901685.46	14901685.58	0.1644	0.1017
Venus	36089-12-10 04:48 G	14902640.55	14902640.70	14902640.86	0.1940	0.0943
Mercury	36096-09-19 01:12 G	14905115.39	14905115.55	14905115.72	0.1639	0.0293
Mercury	36099-06-21 14:38 G	14906121.08	14906121.11	14906121.14	0.1888	0.1812
Mercury	36106-02-10 03:21 G	14908545.62	14908545.64	14908545.67	0.1634	0.1609
Mercury	36108-11-11 22:33 G	14909551.32	14909551.44	14909551.55	0.1895	0.0492
Moon	36110-01-25 17:45 G	14909991.07	14909991.24	14909991.40	0.1727	0.0978
Earth	36110-01-25 20:24 G	14909991.19	14909991.35	14909991.51	0.1727	0.0913 *
Mercury	36118-04-04 06:29 G	14912981.67	14912981.77	14912981.88	0.1901	0.0826
Venus	36121-01-03 21:07 G	14913987.21	14913987.38	14913987.55	0.1595	0.0282
Mercury	36126-10-29 23:45 G	14916112.38	14916112.49	14916112.59	0.1644	0.1230
Mercury	36136-03-21 01:55 G	14919542.41	14919542.58	14919542.74	0.1639	0.0101
Mercury	36145-08-11 04:05 G	14922972.59	14922972.67	14922972.75	0.1634	0.1417
Mercury	36148-05-12 22:33 G	14923978.33	14923978.44	14923978.55	0.1895	0.0654
Venus	36155-10-08 06:29 G	14926682.59	14926682.77	14926682.94	0.1941	0.0052
Mercury	36157-10-03 06:43 G	14927408.67	14927408.78	14927408.88	0.1901	0.0669
Mercury	36166-04-30 00:14 G	14930539.43	14930539.51	14930539.59	0.1644	0.1429
Mercury	36175-09-20 02:38 G	14933969.44	14933969.61	14933969.77	0.1639	0.0119
Mercury	36185-02-09 04:33 G	14937399.59	14937399.69	14937399.80	0.1634	0.1208
Venus	36186-11-01 10:19 G	14938029.76	14938029.93	14938030.09	0.1594	0.0493
Mercury	36187-11-11 22:33 G	14938405.33	14938405.44	14938405.54	0.1894	0.0803
Earth	36189-01-28 07:12 G	14938848.73	14938848.80	14938848.87	0.1733	0.1593
Moon	36189-01-28 13:26 G	14938849.03	14938849.06	14938849.09	0.1733	0.1708
Mercury	36197-04-03 06:29 G	14941835.66	14941835.77	14941835.88	0.1901	0.0521
Mercury	36205-10-30 00:43 G	14944966.51	14944966.53	14944966.56	0.1644	0.1620

Mercury	36206-08-25 14:53 G	14945266.08	14945266.12	14945266.15	0.1907	0.1825
Moon	36210-07-28 19:41 G	14946699.20	14946699.32	14946699.44	0.1814	0.1483
Earth	36210-07-28 19:55 G	14946699.21	14946699.33	14946699.45	0.1814	0.1445 *
Mercury	36215-03-22 03:07 G	14948396.47	14948396.63	14948396.79	0.1639	0.0312
Venus	36218-11-01 00:43 G	14949716.45	14949716.53	14949716.62	0.1598	0.1377
Venus	36221-08-05 07:26 G	14950724.65	14950724.81	14950724.96	0.1943	0.0901
Mercury	36224-08-11 05:17 G	14951826.59	14951826.72	14951826.85	0.1634	0.1007
Mercury	36227-05-13 22:19 G	14952832.33	14952832.43	14952832.54	0.1895	0.0956
Mercury	36236-10-03 06:43 G	14956262.66	14956262.78	14956262.89	0.1901	0.0359
Mercury	36246-02-23 14:38 G	14959693.06	14959693.11	14959693.16	0.1907	0.1695
Venus	36252-08-29 23:02 G	14962072.31	14962072.46	14962072.62	0.1593	0.0722
Mercury	36254-09-20 03:36 G	14962823.50	14962823.65	14962823.81	0.1639	0.0506
Mercury	36264-02-10 06:00 G	14966253.60	14966253.75	14966253.89	0.1634	0.0809
Mercury	36266-11-11 22:33 G	14967259.35	14967259.44	14967259.53	0.1894	0.1130
Mercury	36276-04-03 06:29 G	14970689.66	14970689.77	14970689.89	0.1901	0.0212
Venus	36284-08-28 13:55 G	14973758.96	14973759.08	14973759.20	0.1597	0.1156
Mercury	36285-08-24 14:38 G	14974120.04	14974120.11	14974120.18	0.1907	0.1527
Venus	36287-06-02 08:53 G	14974766.81	14974766.87	14974766.93	0.1944	0.1816
Mercury	36294-03-21 04:19 G	14977250.54	14977250.68	14977250.83	0.1639	0.0716
Mercury	36303-08-12 06:29 G	14980680.62	14980680.77	14980680.92	0.1634	0.0605
Mercury	36306-05-13 22:19 G	14981686.35	14981686.43	14981686.52	0.1894	0.1269
Mercury	36315-10-04 06:29 G	14985116.66	14985116.77	14985116.89	0.1901	0.0080
Venus	36318-06-28 12:14 G	14986114.87	14986115.01	14986115.15	0.1592	0.0938
Mercury	36325-02-23 14:38 G	14988547.03	14988547.11	14988547.19	0.1907	0.1367
Mercury	36333-09-20 05:02 G	14991677.57	14991677.71	14991677.84	0.1640	0.0916
Mercury	36343-02-10 07:12 G	14995107.64	14995107.80	14995107.96	0.1634	0.0401
Mercury	36345-11-11 22:33 G	14996113.36	14996113.44	14996113.51	0.1894	0.1430
Venus	36350-06-27 02:38 G	14997801.47	14997801.61	14997801.76	0.1595	0.0931
Mercury	36355-04-04 06:29 G	14999543.66	14999543.77	14999543.89	0.1900	0.0124
Mercury	36364-08-24 14:38 G	15002974.02	15002974.11	15002974.20	0.1907	0.1224

Mercury	36373-03-21 05:31 G	15006104.61	15006104.73	15006104.85	0.1639	0.1110
Mercury	36382-08-11 07:41 G	15009534.66	15009534.82	15009534.99	0.1635	0.0208
Venus	36384-04-25 01:12 G	15010157.44	15010157.55	15010157.67	0.1592	0.1158
Mercury	36385-05-12 22:33 G	15010540.38	15010540.44	15010540.50	0.1894	0.1597
Mercury	36392-01-01 10:05 G	15012964.86	15012964.92	15012964.97	0.1630	0.1513
Moon	36394-01-28 10:33 G	15013722.77	15013722.94	15013723.12	0.1720	0.0427
Earth	36394-01-28 14:38 G	15013722.93	15013723.11	15013723.30	0.1720	0.0437 *
Mercury	36394-10-03 06:43 G	15013970.66	15013970.78	15013970.89	0.1900	0.0277
Mercury	36404-02-23 14:38 G	15017401.01	15017401.11	15017401.20	0.1907	0.1067
Mercury	36412-09-19 06:14 G	15020531.66	15020531.76	15020531.85	0.1640	0.1315
Venus	36416-04-23 16:05 G	15021844.01	15021844.17	15021844.32	0.1595	0.0710
Mercury	36422-02-09 08:24 G	15023961.69	15023961.85	15023962.02	0.1635	0.0028
Mercury	36424-11-10 22:33 G	15024967.40	15024967.44	15024967.48	0.1894	0.1746
Mercury	36431-07-02 10:33 G	15027391.84	15027391.94	15027392.03	0.1630	0.1322
Mercury	36434-04-03 06:29 G	15028397.66	15028397.77	15028397.89	0.1900	0.0424
Mercury	36443-08-24 14:38 G	15031828.01	15031828.11	15031828.21	0.1906	0.0897
Venus	36450-02-20 14:24 G	15034200.01	15034200.10	15034200.18	0.1591	0.1372
Venus	36451-01-25 16:33 G	15034539.04	15034539.19	15034539.34	0.1942	0.1028
Mercury	36452-03-20 06:57 G	15034958.73	15034958.79	15034958.84	0.1640	0.1522
Mercury	36461-08-10 09:07 G	15038388.72	15038388.88	15038389.04	0.1635	0.0205
Mercury	36470-12-31 11:17 G	15041818.85	15041818.97	15041819.09	0.1630	0.1108
Mercury	36473-10-02 06:43 G	15042824.66	15042824.78	15042824.89	0.1900	0.0589
Venus	36482-02-19 04:48 G	15045886.54	15045886.70	15045886.87	0.1594	0.0490
Mercury	36483-02-22 14:38 G	15046255.00	15046255.11	15046255.21	0.1906	0.0765
Earth	36494-07-29 19:41 G	15050430.27	15050430.32	15050430.38	0.1823	0.1741
Mercury	36501-02-09 09:36 G	15052815.75	15052815.90	15052816.06	0.1635	0.0407
Mercury	36510-07-02 11:45 G	15056245.86	15056245.99	15056246.13	0.1630	0.0909
Mercury	36513-04-03 06:29 G	15057251.67	15057251.77	15057251.88	0.1900	0.0738
Venus	36515-12-20 03:36 G	15058242.65	15058242.65	15058242.65	0.1590	0.1589
Venus	36516-11-22 18:00 G	15058581.07	15058581.25	15058581.42	0.1944	0.0111

Mercury	36522-08-24 14:38 G	15060682.00	15060682.11	15060682.22	0.1906	0.0592
Mercury	36540-08-10 10:19 G	15067242.78	15067242.93	15067243.08	0.1635	0.0608
Venus	36547-12-18 18:00 G	15069929.08	15069929.25	15069929.42	0.1593	0.0264
Mercury	36549-12-31 12:29 G	15070672.87	15070673.02	15070673.17	0.1630	0.0712
Mercury	36552-10-02 06:43 G	15071678.67	15071678.78	15071678.88	0.1900	0.0902
Mercury	36562-02-22 14:38 G	15075109.00	15075109.11	15075109.22	0.1906	0.0433
Mercury	36571-07-15 22:48 G	15078539.41	15078539.45	15078539.48	0.1912	0.1780
Mercury	36580-02-09 11:02 G	15081669.82	15081669.96	15081670.10	0.1635	0.0813
Venus	36582-09-19 19:12 G	15082623.14	15082623.30	15082623.46	0.1945	0.0827
Mercury	36589-07-01 13:12 G	15085099.89	15085100.05	15085100.21	0.1631	0.0499
Mercury	36592-04-02 06:29 G	15086105.68	15086105.77	15086105.87	0.1899	0.1058
Mercury	36601-08-24 14:38 G	15089535.99	15089536.11	15089536.22	0.1906	0.0288
Mercury	36611-01-14 22:48 G	15092966.39	15092966.45	15092966.51	0.1912	0.1613
Venus	36613-10-16 07:26 G	15093971.63	15093971.81	15093971.98	0.1592	0.0057
Mercury	36619-08-11 11:31 G	15096096.86	15096096.98	15096097.11	0.1635	0.1013
Mercury	36628-12-31 13:55 G	15099526.92	15099527.08	15099527.24	0.1631	0.0297
Mercury	36631-10-03 06:43 G	15100532.69	15100532.78	15100532.87	0.1899	0.1216
Mercury	36638-05-23 15:50 G	15102957.15	15102957.16	15102957.18	0.1626	0.1616
Mercury	36641-02-22 14:38 G	15103962.99	15103963.11	15103963.22	0.1906	0.0128
Venus	36648-07-17 20:09 G	15106665.27	15106665.34	15106665.41	0.1947	0.1772
Mercury	36650-07-15 22:48 G	15107393.37	15107393.45	15107393.52	0.1911	0.1469
Mercury	36659-02-09 12:14 G	15110523.90	15110524.01	15110524.12	0.1635	0.1219
Mercury	36668-07-01 14:24 G	15113953.93	15113954.10	15113954.26	0.1631	0.0104
Mercury	36671-04-03 06:29 G	15114959.70	15114959.77	15114959.85	0.1900	0.1374
Mercury	36677-11-21 16:33 G	15117384.11	15117384.19	15117384.27	0.1626	0.1410
Earth	36678-01-31 09:36 G	15117454.71	15117454.90	15117455.09	0.1713	0.0065
Moon	36678-01-31 16:19 G	15117455.00	15117455.18	15117455.36	0.1713	0.0324 *
Venus	36679-08-13 20:09 G	15118014.17	15118014.34	15118014.51	0.1591	0.0174
Mercury	36680-08-23 14:38 G	15118390.00	15118390.11	15118390.23	0.1905	0.0075
Mercury	36690-01-13 22:48 G	15121820.36	15121820.45	15121820.53	0.1911	0.1313

Mercury	36698-08-10 12:43 G	15124950.96	15124951.03	15124951.11	0.1636	0.1421
Mercury	36708-01-01 15:07 G	15128380.97	15128381.13	15128381.29	0.1631	0.0111
Mercury	36710-10-03 06:43 G	15129386.71	15129386.78	15129386.84	0.1899	0.1535
Mercury	36717-05-23 17:17 G	15131811.11	15131811.22	15131811.32	0.1626	0.1214
Mercury	36720-02-23 14:38 G	15132816.99	15132817.11	15132817.22	0.1905	0.0189
Mercury	36729-07-15 22:48 G	15136247.36	15136247.45	15136247.54	0.1911	0.1142
Mercury	36738-02-09 13:26 G	15139378.04	15139378.06	15139378.08	0.1636	0.1622
Venus	36745-06-11 09:36 G	15142056.73	15142056.90	15142057.06	0.1591	0.0385
Mercury	36747-07-02 15:50 G	15142808.00	15142808.16	15142808.32	0.1631	0.0314
Mercury	36750-04-03 06:29 G	15143813.72	15143813.77	15143813.83	0.1899	0.1688
Mercury	36756-11-21 18:00 G	15146238.12	15146238.25	15146238.38	0.1627	0.1001
Mercury	36759-08-24 14:38 G	15147244.00	15147244.11	15147244.23	0.1905	0.0357
Mercury	36769-01-13 22:33 G	15150674.35	15150674.44	15150674.54	0.1911	0.1003
Venus	36777-06-10 00:00 G	15153743.44	15153743.50	15153743.56	0.1593	0.1485
Mercury	36786-12-31 16:19 G	15157235.03	15157235.18	15157235.34	0.1631	0.0510
Mercury	36789-10-02 06:43 G	15158240.76	15158240.78	15158240.80	0.1899	0.1858
Mercury	36796-05-22 18:29 G	15160665.13	15160665.27	15160665.42	0.1627	0.0800
Mercury	36799-02-22 14:38 G	15161671.00	15161671.11	15161671.22	0.1905	0.0514
Mercury	36808-07-14 22:48 G	15165101.34	15165101.45	15165101.55	0.1911	0.0844
Venus	36811-04-08 22:33 G	15166099.28	15166099.44	15166099.60	0.1590	0.0605
Venus	36812-03-12 04:48 G	15166437.56	15166437.70	15166437.84	0.1945	0.1134
Mercury	36826-07-01 17:02 G	15171662.06	15171662.21	15171662.36	0.1631	0.0721
Mercury	36835-11-21 19:12 G	15175092.15	15175092.30	15175092.45	0.1627	0.0602
Mercury	36838-08-23 14:38 G	15176098.00	15176098.11	15176098.22	0.1905	0.0662
Venus	36843-04-07 13:12 G	15177785.94	15177786.05	15177786.15	0.1593	0.1265
Mercury	36848-01-13 22:48 G	15179528.34	15179528.45	15179528.56	0.1911	0.0671
Earth	36857-08-04 18:57 G	15183019.20	15183019.29	15183019.39	0.1825	0.1575
Mercury	36865-12-30 17:45 G	15186089.10	15186089.24	15186089.37	0.1631	0.0925
Mercury	36875-05-22 19:55 G	15189519.17	15189519.33	15189519.49	0.1627	0.0393
Venus	36877-02-03 11:45 G	15190141.84	15190141.99	15190142.14	0.1589	0.0819

Venus	36878-01-07 05:31 G	15190479.55	15190479.73	15190479.90	0.1946	0.0182
Mercury	36878-02-21 14:38 G	15190525.01	15190525.11	15190525.22	0.1905	0.0826
Mercury	36887-07-14 22:33 G	15193955.33	15193955.44	15193955.56	0.1910	0.0535
Mercury	36896-12-04 06:43 G	15197385.76	15197385.78	15197385.80	0.1916	0.1873
Mercury	36905-07-01 18:14 G	15200516.14	15200516.26	15200516.38	0.1632	0.1117
Venus	36909-02-03 02:09 G	15201828.46	15201828.59	15201828.72	0.1592	0.1046
Mercury	36914-11-21 20:38 G	15203946.19	15203946.36	15203946.52	0.1627	0.0187
Mercury	36917-08-23 14:38 G	15204952.02	15204952.11	15204952.21	0.1904	0.0997
Mercury	36924-04-12 22:33 G	15207376.38	15207376.44	15207376.50	0.1623	0.1505
Mercury	36927-01-13 22:48 G	15208382.33	15208382.45	15208382.56	0.1910	0.0372
Mercury	36936-06-05 06:43 G	15211812.73	15211812.78	15211812.83	0.1916	0.1718
Venus	36942-12-03 00:57 G	15214184.41	15214184.54	15214184.67	0.1589	0.1035
Venus	36943-11-05 06:43 G	15214521.62	15214521.78	15214521.95	0.1947	0.0759
Mercury	36944-12-30 18:57 G	15214943.20	15214943.29	15214943.38	0.1632	0.1333
Mercury	36954-05-22 21:07 G	15218373.21	15218373.38	15218373.54	0.1627	0.0028
Mercury	36957-02-21 14:38 G	15219379.02	15219379.11	15219379.20	0.1905	0.1136
Moon	36962-02-03 04:33 G	15221186.50	15221186.69	15221186.87	0.1706	0.0757
Earth	36962-02-03 06:14 G	15221186.58	15221186.76	15221186.93	0.1706	0.0600 *
Mercury	36963-10-12 23:17 G	15221803.37	15221803.47	15221803.56	0.1623	0.1304
Mercury	36966-07-14 22:48 G	15222809.33	15222809.45	15222809.56	0.1910	0.0199
Venus	36974-12-01 15:21 G	15225870.99	15225871.14	15225871.29	0.1591	0.0823
Mercury	36975-12-05 06:43 G	15226239.72	15226239.78	15226239.85	0.1916	0.1561
Mercury	36984-06-30 19:26 G	15229370.26	15229370.31	15229370.37	0.1632	0.1534
Mercury	36993-11-20 21:50 G	15232800.25	15232800.41	15232800.57	0.1627	0.0222
Mercury	36996-08-22 14:38 G	15233806.03	15233806.11	15233806.20	0.1904	0.1310

38TH MILLENNIUM CE

This is a list of transits visible from Mars in the 38th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	37003-04-13 23:45	G	15236230.37	15236230.49	15236230.62	0.1623	0.1099	
Mercury	37006-01-13 22:33	G	15237236.33	15237236.44	15237236.56	0.1910	0.0093	
Venus	37008-09-30 14:24	G	15238226.99	15238227.10	15238227.20	0.1589	0.1251	
Venus	37009-09-02 07:41	G	15238563.74	15238563.82	15238563.91	0.1948	0.1708	
Mercury	37015-06-06 06:43	G	15240666.70	15240666.78	15240666.86	0.1916	0.1407	
Mercury	37033-05-22 22:19	G	15247227.28	15247227.43	15247227.59	0.1628	0.0426	
Mercury	37036-02-22 14:38	G	15248233.04	15248233.11	15248233.19	0.1904	0.1465	
Venus	37040-09-29 04:33	G	15249913.53	15249913.69	15249913.85	0.1590	0.0611	
Mercury	37042-10-13 00:29	G	15250657.39	15250657.52	15250657.66	0.1623	0.0894	
Mercury	37045-07-14 22:48	G	15251663.33	15251663.45	15251663.56	0.1910	0.0128	
Mercury	37054-12-05 06:43	G	15255093.70	15255093.78	15255093.87	0.1915	0.1244	
Mercury	37072-11-20 23:02	G	15261654.31	15261654.46	15261654.61	0.1628	0.0621	
Venus	37074-07-29 03:21	G	15262269.58	15262269.64	15262269.70	0.1588	0.1467	
Mercury	37075-08-23 14:38	G	15262660.05	15262660.11	15262660.17	0.1904	0.1619	
Mercury	37082-04-13 01:12	G	15265084.40	15265084.55	15265084.70	0.1623	0.0691	
Mercury	37085-01-12 22:48	G	15266090.34	15266090.45	15266090.56	0.1910	0.0278	
Mercury	37094-06-05 06:43	G	15269520.69	15269520.78	15269520.87	0.1915	0.1095	
Venus	37106-07-28 17:17	G	15273956.06	15273956.22	15273956.39	0.1590	0.0385	
Mercury	37112-05-22 23:45	G	15276081.35	15276081.49	15276081.63	0.1628	0.0832	
Mercury	37115-02-22 14:38	G	15277087.08	15277087.11	15277087.15	0.1904	0.1784	
Mercury	37121-10-13 01:55	G	15279511.42	15279511.58	15279511.73	0.1623	0.0485	
Mercury	37124-07-14 22:33	G	15280517.33	15280517.44	15280517.56	0.1910	0.0421	

Mercury	37133-12-05 06:43 G	15283947.68	15283947.78	15283947.88	0.1916	0.0931
Earth	37141-08-07 15:07 G	15286749.98	15286750.13	15286750.28	0.1835	0.1155
Moon	37141-08-07 23:02 G	15286750.37	15286750.46	15286750.54	0.1834	0.1653
Mercury	37151-11-22 00:29 G	15290508.39	15290508.52	15290508.64	0.1628	0.1039
Mercury	37161-04-13 02:24 G	15293938.44	15293938.60	15293938.77	0.1623	0.0285
Mercury	37164-01-13 22:33 G	15294944.33	15294944.44	15294944.56	0.1910	0.0585
Earth	37167-02-03 18:29 G	15296061.14	15296061.27	15296061.40	0.1695	0.1188
Moon	37167-02-03 19:55 G	15296061.23	15296061.33	15296061.43	0.1695	0.1365 *
Mercury	37170-09-03 04:33 G	15297368.67	15297368.69	15297368.72	0.1619	0.1597
Venus	37172-05-25 06:43 G	15297998.61	15297998.78	15297998.96	0.1589	0.0179
Venus	37173-04-27 15:50 G	15298336.02	15298336.16	15298336.30	0.1946	0.1189
Mercury	37173-06-05 06:43 G	15298374.67	15298374.78	15298374.88	0.1915	0.0777
Mercury	37191-05-23 00:57 G	15304935.43	15304935.54	15304935.64	0.1628	0.1229
Mercury	37200-10-12 03:07 G	15308365.47	15308365.63	15308365.79	0.1624	0.0080
Mercury	37203-07-14 22:48 G	15309371.34	15309371.45	15309371.55	0.1909	0.0751
Mercury	37210-03-04 05:17 G	15311795.64	15311795.72	15311795.80	0.1620	0.1390
Mercury	37212-12-04 06:43 G	15312801.67	15312801.78	15312801.89	0.1915	0.0620
Mercury	37230-11-21 01:41 G	15319362.49	15319362.57	15319362.64	0.1628	0.1442
Venus	37238-03-22 19:41 G	15322041.15	15322041.32	15322041.50	0.1589	0.0053
Venus	37239-02-22 17:02 G	15322378.04	15322378.21	15322378.39	0.1947	0.0263
Mercury	37240-04-12 03:50 G	15322792.49	15322792.66	15322792.82	0.1624	0.0129
Mercury	37243-01-12 22:33 G	15323798.34	15323798.44	15323798.54	0.1909	0.0893
Moon	37246-02-05 21:21 G	15324918.28	15324918.39	15324918.51	0.1699	0.1279
Earth	37246-02-06 03:07 G	15324918.49	15324918.63	15324918.77	0.1700	0.1137 *
Mercury	37249-09-02 05:45 G	15326222.63	15326222.74	15326222.85	0.1620	0.1198
Mercury	37252-06-04 06:43 G	15327228.67	15327228.78	15327228.89	0.1915	0.0462
Mercury	37261-10-25 14:53 G	15330659.09	15330659.12	15330659.15	0.1920	0.1814
Mercury	37279-10-12 04:19 G	15337219.52	15337219.68	15337219.85	0.1624	0.0335
Mercury	37282-07-13 22:33 G	15338225.35	15338225.44	15338225.54	0.1909	0.1058
Mercury	37289-03-03 06:29 G	15340649.64	15340649.77	15340649.91	0.1620	0.0983

Mercury	37291-12-04 06:43 G	15341655.67	15341655.78	15341655.89	0.1915	0.0302
Mercury	37301-04-26 14:38 G	15345086.06	15345086.11	15345086.17	0.1920	0.1682
Venus	37304-01-19 08:53 G	15346083.70	15346083.87	15346084.05	0.1588	0.0267
Venus	37304-12-20 18:00 G	15346420.08	15346420.25	15346420.41	0.1948	0.0711
Mercury	37319-04-13 05:02 G	15351646.55	15351646.71	15351646.87	0.1624	0.0533
Mercury	37322-01-12 22:48 G	15352652.36	15352652.45	15352652.54	0.1909	0.1230
Mercury	37328-09-02 07:12 G	15355076.65	15355076.80	15355076.94	0.1620	0.0782
Mercury	37331-06-05 06:43 G	15356082.66	15356082.78	15356082.89	0.1915	0.0165
Mercury	37340-10-25 14:53 G	15359513.05	15359513.12	15359513.19	0.1920	0.1508
Mercury	37358-10-12 05:45 G	15366073.59	15366073.74	15366073.88	0.1624	0.0737
Mercury	37361-07-13 22:33 G	15367079.36	15367079.44	15367079.52	0.1909	0.1365
Mercury	37368-03-03 07:41 G	15369503.67	15369503.82	15369503.98	0.1620	0.0586
Venus	37369-11-15 22:05 G	15370126.26	15370126.42	15370126.59	0.1588	0.0484
Venus	37370-10-17 18:57 G	15370462.20	15370462.29	15370462.38	0.1949	0.1668
Mercury	37370-12-04 06:43 G	15370509.66	15370509.78	15370509.90	0.1915	0.0017
Mercury	37380-04-25 14:53 G	15373940.04	15373940.12	15373940.20	0.1920	0.1352
Mercury	37398-04-12 06:14 G	15380500.63	15380500.76	15380500.90	0.1624	0.0940
Mercury	37401-01-12 22:33 G	15381506.38	15381506.44	15381506.51	0.1909	0.1535
Venus	37401-11-15 12:29 G	15381812.93	15381813.02	15381813.10	0.1590	0.1381
Mercury	37407-09-03 08:24 G	15383930.69	15383930.85	15383931.02	0.1620	0.0374
Mercury	37410-06-05 06:43 G	15384936.66	15384936.78	15384936.89	0.1914	0.0178
Mercury	37419-10-26 14:38 G	15388367.02	15388367.11	15388367.20	0.1920	0.1207
Moon	37425-08-09 00:57 G	15390480.35	15390480.54	15390480.74	0.1845	0.0430
Earth	37425-08-09 09:36 G	15390480.71	15390480.90	15390481.08	0.1844	0.0615 *
Venus	37435-09-14 11:31 G	15394168.82	15394168.98	15394169.13	0.1588	0.0700
Mercury	37437-10-12 06:57 G	15394927.67	15394927.79	15394927.91	0.1624	0.1144
Mercury	37440-07-13 22:33 G	15395933.40	15395933.44	15395933.49	0.1909	0.1706
Mercury	37447-03-04 09:07 G	15398357.72	15398357.88	15398358.05	0.1620	0.0167
Mercury	37449-12-04 06:43 G	15399363.66	15399363.78	15399363.89	0.1914	0.0329
Earth	37451-02-06 16:48 G	15399793.03	15399793.20	15399793.38	0.1688	0.0597

Moon	37451-02-06 22:05 G	15399793.24	15399793.42	15399793.60	0.1689	0.0715 *
Mercury	37456-07-24 11:17 G	15401787.91	15401787.97	15401788.03	0.1616	0.1484
Mercury	37459-04-26 14:38 G	15402794.02	15402794.11	15402794.21	0.1920	0.1044
Venus	37467-09-13 01:41 G	15405855.45	15405855.57	15405855.69	0.1589	0.1167
Mercury	37477-04-12 07:26 G	15409354.72	15409354.81	15409354.90	0.1624	0.1347
Mercury	37480-01-12 22:33 G	15410360.41	15410360.44	15410360.47	0.1909	0.1845
Mercury	37486-09-02 09:36 G	15412784.74	15412784.90	15412785.07	0.1620	0.0031
Mercury	37489-06-04 06:43 G	15413790.66	15413790.78	15413790.89	0.1914	0.0490
Mercury	37496-01-23 11:45 G	15416214.90	15416214.99	15416215.09	0.1617	0.1280
Mercury	37498-10-25 14:53 G	15417221.01	15417221.12	15417221.22	0.1919	0.0880
Venus	37501-07-13 00:29 G	15418211.38	15418211.52	15418211.66	0.1587	0.0921
Mercury	37516-10-12 08:09 G	15423781.80	15423781.84	15423781.89	0.1625	0.1551
Mercury	37526-03-04 10:19 G	15427211.77	15427211.93	15427212.10	0.1620	0.0243
Mercury	37528-12-04 06:43 G	15428217.67	15428217.78	15428217.88	0.1914	0.0648
Earth	37530-02-09 23:45 G	15428650.46	15428650.49	15428650.52	0.1693	0.1665
Venus	37533-07-11 14:24 G	15429897.96	15429898.10	15429898.24	0.1589	0.0936
Venus	37534-06-13 02:53 G	15430234.49	15430234.62	15430234.76	0.1947	0.1244
Mercury	37535-07-25 12:29 G	15430641.90	15430642.02	15430642.14	0.1616	0.1082
Mercury	37538-04-26 14:38 G	15431648.00	15431648.11	15431648.21	0.1919	0.0741
Mercury	37565-09-02 11:02 G	15441638.80	15441638.96	15441639.12	0.1621	0.0441
Venus	37567-05-10 13:41 G	15442253.95	15442254.07	15442254.19	0.1587	0.1143
Mercury	37568-06-04 06:29 G	15442644.67	15442644.77	15442644.88	0.1914	0.0796
Mercury	37575-01-23 13:12 G	15445068.91	15445069.05	15445069.19	0.1617	0.0869
Mercury	37577-10-25 14:38 G	15446075.00	15446075.11	15446075.22	0.1919	0.0567
Venus	37599-05-09 03:50 G	15453940.51	15453940.66	15453940.82	0.1588	0.0726
Venus	37600-04-09 03:36 G	15454276.48	15454276.65	15454276.83	0.1948	0.0275
Mercury	37605-03-03 11:31 G	15456065.83	15456065.98	15456066.13	0.1621	0.0642
Mercury	37607-12-04 06:43 G	15457071.68	15457071.78	15457071.88	0.1914	0.0971
Mercury	37614-07-24 13:55 G	15459495.92	15459496.08	15459496.23	0.1617	0.0667
Mercury	37617-04-25 14:38 G	15460502.00	15460502.11	15460502.22	0.1919	0.0412

Mercury	37626-09-15 22:33 G	15463932.41	15463932.44	15463932.48	0.1924	0.1792
Venus	37633-03-07 02:53 G	15466296.53	15466296.62	15466296.71	0.1587	0.1360
Mercury	37644-09-01 12:14 G	15470492.87	15470493.01	15470493.15	0.1621	0.0851
Mercury	37647-06-04 06:29 G	15471498.68	15471498.77	15471498.87	0.1913	0.1116
Mercury	37654-01-22 14:24 G	15473922.94	15473923.10	15473923.26	0.1617	0.0469
Mercury	37656-10-24 14:38 G	15474928.99	15474929.11	15474929.22	0.1919	0.0266
Venus	37665-03-05 16:33 G	15477983.03	15477983.19	15477983.36	0.1588	0.0500
Venus	37666-02-04 04:48 G	15478318.54	15478318.70	15478318.87	0.1949	0.0674
Mercury	37666-03-16 22:48 G	15478359.39	15478359.45	15478359.51	0.1924	0.1625
Mercury	37684-03-02 12:57 G	15484919.91	15484920.04	15484920.16	0.1621	0.1055
Mercury	37686-12-03 06:29 G	15485925.69	15485925.77	15485925.86	0.1913	0.1276
Mercury	37693-07-23 15:07 G	15488349.97	15488350.13	15488350.29	0.1617	0.0259
Mercury	37696-04-24 14:38 G	15489355.99	15489356.11	15489356.22	0.1919	0.0102
Venus	37699-01-02 15:50 G	15490339.16	15490339.16	15490339.17	0.1587	0.1586
Mercury	37702-12-14 17:17 G	15491780.18	15491780.22	15491780.25	0.1613	0.1572
Mercury	37705-09-15 22:33 G	15492786.37	15492786.44	15492786.51	0.1924	0.1480
Earth	37709-08-11 01:12 G	15494211.35	15494211.55	15494211.75	0.1853	0.0091
Moon	37709-08-11 04:33 G	15494211.50	15494211.69	15494211.87	0.1853	0.0079 *
Mercury	37723-09-02 13:26 G	15499346.96	15499347.06	15499347.16	0.1621	0.1249
Mercury	37726-06-04 06:29 G	15500352.70	15500352.77	15500352.85	0.1914	0.1443
Venus	37731-01-02 06:00 G	15502025.58	15502025.75	15502025.92	0.1588	0.0285
Venus	37731-12-03 05:31 G	15502360.64	15502360.73	15502360.82	0.1949	0.1653
Mercury	37733-01-22 15:50 G	15502776.99	15502777.16	15502777.32	0.1617	0.0057
Moon	37735-02-09 09:21 G	15503524.70	15503524.89	15503525.08	0.1682	0.0343
Earth	37735-02-09 16:05 G	15503524.98	15503525.17	15503525.35	0.1682	0.0034 *
Mercury	37735-10-25 14:38 G	15503782.99	15503783.11	15503783.23	0.1918	0.0067
Mercury	37742-06-14 17:45 G	15506207.16	15506207.24	15506207.33	0.1613	0.1369
Mercury	37745-03-16 22:33 G	15507213.36	15507213.44	15507213.52	0.1924	0.1325
Mercury	37763-03-03 14:09 G	15513774.02	15513774.09	15513774.16	0.1621	0.1464
Mercury	37765-12-03 06:29 G	15514779.71	15514779.77	15514779.83	0.1913	0.1597

Mercury	37772-07-23 16:19 G	15517204.01	15517204.18	15517204.34	0.1617	0.0145
Mercury	37775-04-25 14:24 G	15518209.99	15518210.10	15518210.22	0.1919	0.0218
Mercury	37781-12-13 18:29 G	15520634.16	15520634.27	15520634.38	0.1614	0.1166
Mercury	37784-09-14 22:48 G	15521640.36	15521640.45	15521640.54	0.1923	0.1149
Venus	37796-10-29 19:12 G	15526068.13	15526068.30	15526068.48	0.1587	0.0070
Mercury	37805-06-04 06:29 G	15529206.73	15529206.77	15529206.81	0.1913	0.1750
Mercury	37812-01-23 17:02 G	15531631.05	15531631.21	15531631.37	0.1617	0.0357
Mercury	37814-10-25 14:38 G	15532636.99	15532637.11	15532637.22	0.1918	0.0385
Mercury	37821-06-14 19:12 G	15535061.16	15535061.30	15535061.43	0.1614	0.0962
Mercury	37824-03-16 22:33 G	15536067.34	15536067.44	15536067.53	0.1923	0.1017
Mercury	37851-07-24 17:45 G	15546058.08	15546058.24	15546058.39	0.1617	0.0562
Mercury	37854-04-25 14:24 G	15547063.99	15547064.10	15547064.22	0.1918	0.0539
Mercury	37860-12-13 19:55 G	15549488.18	15549488.33	15549488.47	0.1614	0.0755
Venus	37862-08-28 08:24 G	15550110.68	15550110.85	15550111.02	0.1587	0.0153
Mercury	37863-09-15 22:33 G	15550494.34	15550494.44	15550494.54	0.1923	0.0846
Mercury	37891-01-22 18:14 G	15560485.11	15560485.26	15560485.40	0.1618	0.0757
Mercury	37893-10-24 14:24 G	15561491.00	15561491.10	15561491.21	0.1918	0.0695
Venus	37895-07-28 13:12 G	15562132.92	15562133.05	15562133.18	0.1948	0.1255
Mercury	37900-06-14 20:24 G	15563915.20	15563915.35	15563915.51	0.1614	0.0551
Mercury	37903-03-17 22:33 G	15564921.33	15564921.44	15564921.55	0.1923	0.0681
Venus	37928-06-25 21:36 G	15574153.23	15574153.40	15574153.57	0.1587	0.0373
Mercury	37930-07-24 18:57 G	15574912.16	15574912.29	15574912.42	0.1618	0.0971
Mercury	37933-04-25 14:24 G	15575918.00	15575918.10	15575918.21	0.1918	0.0857
Mercury	37939-12-14 21:07 G	15578342.22	15578342.38	15578342.54	0.1614	0.0344
Earth	37940-02-10 09:07 G	15578399.81	15578399.88	15578399.95	0.1672	0.1553
Moon	37940-02-10 15:07 G	15578400.01	15578400.13	15578400.26	0.1672	0.1239
Mercury	37942-09-15 22:33 G	15579348.33	15579348.44	15579348.55	0.1923	0.0538
Mercury	37952-02-06 06:43 G	15582778.77	15582778.78	15582778.78	0.1928	0.1917
Venus	37960-06-24 11:31 G	15585839.92	15585839.98	15585840.04	0.1588	0.1495
Venus	37961-05-25 14:24 G	15586174.93	15586175.10	15586175.28	0.1948	0.0305

Mercury	37970-01-22 19:41 G	15589339.21	15589339.32	15589339.43	0.1618	0.1178
Mercury	37972-10-24 14:24 G	15590345.01	15590345.10	15590345.20	0.1918	0.1022
Mercury	37979-06-14 21:50 G	15592769.24	15592769.41	15592769.57	0.1614	0.0144
Mercury	37982-03-16 22:33 G	15593775.32	15593775.44	15593775.55	0.1923	0.0381
Mercury	37988-11-03 23:45 G	15596199.42	15596199.49	15596199.56	0.1611	0.1452
Mercury	37991-08-07 06:43 G	15597205.73	15597205.78	15597205.82	0.1927	0.1759
Earth	37993-08-12 14:24 G	15597941.93	15597942.10	15597942.27	0.1863	0.0960
Moon	37993-08-12 19:26 G	15597942.13	15597942.31	15597942.50	0.1862	0.0993 *
Venus	37994-04-23 10:48 G	15598195.79	15598195.95	15598196.11	0.1587	0.0593

39TH MILLENNIUM CE

This is a list of transits visible from Mars in the 39th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	38009-07-23 20:09 G	15603766.25	15603766.34	15603766.42	0.1618	0.1372		
Mercury	38012-04-24 14:24 G	15604772.01	15604772.10	15604772.19	0.1918	0.1168		
Mercury	38018-12-13 22:19 G	15607196.27	15607196.43	15607196.60	0.1614	0.0071		
Moon	38019-02-12 14:24 G	15607256.93	15607257.10	15607257.27	0.1677	0.0421		
Earth	38019-02-12 15:21 G	15607256.96	15607257.14	15607257.31	0.1677	0.0618 *		
Mercury	38021-09-14 22:33 G	15608202.33	15608202.44	15608202.56	0.1923	0.0202		
Venus	38026-04-22 00:57 G	15609882.44	15609882.54	15609882.64	0.1588	0.1283		
Venus	38027-03-22 15:21 G	15610216.97	15610217.14	15610217.30	0.1949	0.0666		
Mercury	38028-05-05 00:29 G	15610626.42	15610626.52	15610626.62	0.1611	0.1247		
Mercury	38031-02-05 06:29 G	15611632.71	15611632.77	15611632.83	0.1927	0.1607		

Mercury	38049-01-21 20:53 G	15618193.34	15618193.37	15618193.40	0.1618	0.1587
Mercury	38051-10-24 14:24 G	15619199.02	15619199.10	15619199.18	0.1918	0.1341
Mercury	38058-06-13 23:02 G	15621623.29	15621623.46	15621623.62	0.1614	0.0271
Venus	38060-02-19 00:00 G	15622238.35	15622238.50	15622238.65	0.1587	0.0812
Mercury	38061-03-15 22:19 G	15622629.32	15622629.43	15622629.55	0.1923	0.0086
Mercury	38067-11-04 00:57 G	15625053.42	15625053.54	15625053.67	0.1611	0.1048
Mercury	38070-08-06 06:43 G	15626059.70	15626059.78	15626059.85	0.1927	0.1439
Mercury	38091-04-24 14:24 G	15633626.03	15633626.10	15633626.17	0.1917	0.1493
Venus	38092-02-17 13:41 G	15633924.94	15633925.07	15633925.20	0.1588	0.1057
Venus	38093-01-16 16:33 G	15634259.09	15634259.19	15634259.28	0.1949	0.1619
Mercury	38097-12-12 23:45 G	15636050.33	15636050.49	15636050.65	0.1614	0.0482
Mercury	38100-09-14 22:33 G	15637056.32	15637056.44	15637056.55	0.1922	0.0118
Mercury	38107-05-06 01:41 G	15639480.43	15639480.57	15639480.72	0.1611	0.0836
Mercury	38110-02-05 06:29 G	15640486.69	15640486.77	15640486.86	0.1927	0.1288
Venus	38125-12-17 12:57 G	15646280.91	15646281.04	15646281.17	0.1587	0.1038
Mercury	38130-10-24 14:24 G	15648053.04	15648053.10	15648053.16	0.1918	0.1658
Mercury	38137-06-14 00:14 G	15650477.36	15650477.51	15650477.66	0.1615	0.0685
Mercury	38140-03-15 22:33 G	15651483.32	15651483.44	15651483.55	0.1922	0.0275
Mercury	38146-11-04 02:24 G	15653907.45	15653907.60	15653907.76	0.1611	0.0629
Mercury	38149-08-06 06:29 G	15654913.68	15654913.77	15654913.86	0.1927	0.1131
Venus	38157-12-16 03:07 G	15657967.49	15657967.63	15657967.78	0.1588	0.0845
Mercury	38170-04-24 14:24 G	15662480.07	15662480.10	15662480.13	0.1917	0.1818
Mercury	38176-12-13 00:57 G	15664904.40	15664904.54	15664904.68	0.1615	0.0889
Mercury	38179-09-14 22:19 G	15665910.32	15665910.43	15665910.55	0.1922	0.0421
Mercury	38186-05-05 03:07 G	15668334.47	15668334.63	15668334.79	0.1611	0.0432
Mercury	38189-02-04 06:29 G	15669340.67	15669340.77	15669340.87	0.1927	0.0965
Venus	38191-10-15 02:24 G	15670323.50	15670323.60	15670323.71	0.1587	0.1250
Mercury	38216-06-14 01:41 G	15679331.45	15679331.57	15679331.69	0.1615	0.1096
Mercury	38219-03-16 22:19 G	15680337.32	15680337.43	15680337.54	0.1922	0.0586
Venus	38223-10-14 16:19 G	15682010.02	15682010.18	15682010.34	0.1587	0.0627

Moon	38224-02-13 10:05 G	15682131.74	15682131.92	15682132.10	0.1667	0.0703
Earth	38224-02-13 09:50 G	15682131.75	15682131.91	15682132.07	0.1667	0.0904 *
Mercury	38225-11-04 03:50 G	15682761.50	15682761.66	15682761.83	0.1611	0.0213
Mercury	38228-08-06 06:29 G	15683767.67	15683767.77	15683767.87	0.1927	0.0809
Mercury	38235-03-27 05:45 G	15686191.70	15686191.74	15686191.79	0.1608	0.1538
Mercury	38255-12-14 02:24 G	15693758.50	15693758.60	15693758.69	0.1615	0.1305
Venus	38256-09-12 00:14 G	15694031.38	15694031.51	15694031.64	0.1948	0.1297
Venus	38257-08-12 15:21 G	15694366.08	15694366.14	15694366.20	0.1588	0.1477
Mercury	38258-09-14 22:33 G	15694764.33	15694764.44	15694764.54	0.1922	0.0761
Mercury	38265-05-05 04:33 G	15697188.52	15697188.69	15697188.85	0.1611	0.0038
Mercury	38268-02-05 06:29 G	15698194.66	15698194.77	15698194.88	0.1926	0.0656
Mercury	38274-09-25 06:29 G	15700618.68	15700618.77	15700618.87	0.1608	0.1325
Venus	38289-08-11 05:31 G	15706052.56	15706052.73	15706052.90	0.1588	0.0407
Mercury	38295-06-14 02:53 G	15708185.56	15708185.62	15708185.68	0.1615	0.1507
Mercury	38298-03-15 22:19 G	15709191.33	15709191.43	15709191.53	0.1922	0.0896
Earth	38303-02-16 15:50 G	15710989.04	15710989.16	15710989.29	0.1671	0.1261
Moon	38303-02-16 22:19 G	15710989.30	15710989.43	15710989.56	0.1671	0.1230
Mercury	38304-11-04 05:02 G	15711615.55	15711615.71	15711615.88	0.1612	0.0194
Mercury	38307-08-07 06:29 G	15712621.66	15712621.77	15712621.88	0.1927	0.0482
Mercury	38314-03-27 07:12 G	15715045.68	15715045.80	15715045.92	0.1608	0.1117
Mercury	38316-12-27 14:38 G	15716052.09	15716052.11	15716052.13	0.1930	0.1887
Venus	38322-07-11 01:12 G	15718073.38	15718073.55	15718073.72	0.1948	0.0329
Mercury	38337-09-14 22:19 G	15723618.34	15723618.43	15723618.53	0.1922	0.1077
Mercury	38344-05-05 05:46 G	15726042.58	15726042.74	15726042.90	0.1611	0.0407
Mercury	38347-02-05 06:29 G	15727048.65	15727048.77	15727048.88	0.1926	0.0339
Mercury	38353-09-25 07:41 G	15729472.69	15729472.82	15729472.96	0.1608	0.0919
Venus	38355-06-09 18:58 G	15730095.12	15730095.29	15730095.46	0.1587	0.0192
Mercury	38356-06-27 14:24 G	15730479.05	15730479.10	15730479.15	0.1931	0.1741
Mercury	38377-03-15 22:19 G	15738045.35	15738045.43	15738045.52	0.1921	0.1240
Mercury	38383-11-04 06:29 G	15740469.62	15740469.77	15740469.92	0.1612	0.0614

Mercury	38386-08-06 06:29 G	15741475.65	15741475.77	15741475.88	0.1926	0.0181
Venus	38388-05-07 02:24 G	15742115.44	15742115.60	15742115.77	0.1948	0.0622
Mercury	38393-03-26 08:38 G	15743899.71	15743899.86	15743900.01	0.1608	0.0700
Mercury	38395-12-27 14:24 G	15744906.04	15744906.10	15744906.17	0.1930	0.1568
Mercury	38416-09-13 22:19 G	15752472.35	15752472.43	15752472.51	0.1922	0.1386
Venus	38421-04-06 07:55 G	15754137.66	15754137.83	15754138.01	0.1588	0.0047
Mercury	38423-05-05 06:58 G	15754896.65	15754896.79	15754896.94	0.1612	0.0817
Mercury	38426-02-04 06:29 G	15755902.65	15755902.77	15755902.88	0.1926	0.0021
Mercury	38432-09-24 09:22 G	15758326.73	15758326.89	15758327.04	0.1609	0.0495
Mercury	38435-06-27 14:24 G	15759333.03	15759333.10	15759333.18	0.1930	0.1413
Venus	38454-03-04 03:22 G	15766157.54	15766157.64	15766157.74	0.1948	0.1586
Mercury	38456-03-14 22:19 G	15766899.37	15766899.43	15766899.50	0.1921	0.1555
Mercury	38462-11-03 07:55 G	15769323.70	15769323.83	15769323.95	0.1612	0.1032
Mercury	38465-08-05 06:29 G	15770329.65	15770329.77	15770329.88	0.1926	0.0169
Mercury	38472-03-25 09:50 G	15772753.75	15772753.91	15772754.07	0.1609	0.0294
Mercury	38474-12-26 14:24 G	15773760.01	15773760.10	15773760.19	0.1930	0.1258
Venus	38487-02-01 21:22 G	15778180.21	15778180.39	15778180.56	0.1588	0.0250
Mercury	38495-09-13 22:34 G	15781326.39	15781326.44	15781326.48	0.1921	0.1731
Mercury	38502-05-05 08:24 G	15783750.75	15783750.85	15783750.96	0.1612	0.1236
Mercury	38505-02-04 06:14 G	15784756.65	15784756.76	15784756.88	0.1926	0.0315
Moon	38508-02-16 05:46 G	15785863.56	15785863.74	15785863.93	0.1661	0.0179
Earth	38508-02-16 12:00 G	15785863.82	15785864.00	15785864.19	0.1662	0.0221 *
Mercury	38511-09-25 10:34 G	15787180.77	15787180.94	15787181.11	0.1609	0.0080
Mercury	38514-06-27 14:24 G	15788187.01	15788187.10	15788187.19	0.1930	0.1092
Mercury	38521-02-14 12:43 G	15790610.95	15790611.03	15790611.11	0.1606	0.1396
Mercury	38535-03-15 22:19 G	15795753.41	15795753.43	15795753.45	0.1921	0.1868
Mercury	38541-11-03 09:07 G	15798177.81	15798177.88	15798177.95	0.1612	0.1439
Mercury	38544-08-05 06:29 G	15799183.66	15799183.77	15799183.88	0.1926	0.0486
Mercury	38551-03-26 11:17 G	15801607.80	15801607.97	15801608.14	0.1609	0.0132
Venus	38552-11-30 10:34 G	15802222.77	15802222.94	15802223.10	0.1588	0.0473

Mercury	38553-12-26 14:24 G	15802614.00	15802614.10	15802614.20	0.1930	0.0930
Mercury	38560-08-15 13:12 G	15805037.94	15805038.05	15805038.17	0.1606	0.1187
Mercury	38584-02-04 06:14 G	15813610.65	15813610.76	15813610.87	0.1925	0.0633
Venus	38584-11-29 00:43 G	15813909.45	15813909.53	15813909.60	0.1588	0.1422
Mercury	38590-09-24 11:46 G	15816034.83	15816034.99	15816035.16	0.1609	0.0333
Mercury	38593-06-26 14:24 G	15817040.99	15817041.10	15817041.20	0.1930	0.0778
Mercury	38600-02-14 13:55 G	15819464.95	15819465.08	15819465.22	0.1606	0.0980
Venus	38617-10-28 11:02 G	15825929.83	15825929.96	15825930.08	0.1948	0.1327
Venus	38618-09-29 00:00 G	15826265.34	15826265.50	15826265.65	0.1588	0.0687
Mercury	38623-08-06 06:14 G	15828037.66	15828037.76	15828037.87	0.1925	0.0796
Mercury	38630-03-26 12:43 G	15830461.87	15830462.03	15830462.18	0.1609	0.0550
Mercury	38632-12-26 14:24 G	15831467.99	15831468.10	15831468.21	0.1930	0.0605
Mercury	38639-08-16 14:38 G	15833891.96	15833892.11	15833892.26	0.1606	0.0772
Moon	38640-08-19 17:46 G	15834261.16	15834261.24	15834261.32	0.1874	0.1663
Earth	38640-08-19 21:50 G	15834261.30	15834261.41	15834261.52	0.1874	0.1560 *
Venus	38650-09-27 13:55 G	15837951.96	15837952.08	15837952.19	0.1588	0.1202
Mercury	38663-02-04 06:29 G	15842464.67	15842464.77	15842464.87	0.1925	0.0973
Mercury	38669-09-24 13:12 G	15844888.91	15844889.05	15844889.20	0.1609	0.0756
Mercury	38672-06-26 14:24 G	15845894.99	15845895.10	15845895.21	0.1929	0.0452
Mercury	38679-02-14 15:22 G	15848318.99	15848319.14	15848319.30	0.1606	0.0560
Mercury	38681-11-16 22:34 G	15849325.41	15849325.44	15849325.47	0.1933	0.1857
Venus	38683-08-25 12:29 G	15849971.85	15849972.02	15849972.20	0.1947	0.0399
Venus	38684-07-26 12:43 G	15850307.89	15850308.03	15850308.17	0.1589	0.0916
Mercury	38702-08-06 06:14 G	15856891.67	15856891.76	15856891.85	0.1925	0.1117
Mercury	38709-03-26 13:55 G	15859315.94	15859316.08	15859316.21	0.1609	0.0956
Mercury	38711-12-27 14:24 G	15860321.98	15860322.10	15860322.21	0.1930	0.0291
Earth	38713-02-16 11:02 G	15860738.90	15860738.96	15860739.02	0.1653	0.1556
Moon	38713-02-16 17:46 G	15860739.20	15860739.24	15860739.27	0.1653	0.1617
Venus	38716-07-26 02:53 G	15861994.49	15861994.62	15861994.76	0.1588	0.0983
Mercury	38718-08-16 16:05 G	15862746.01	15862746.17	15862746.33	0.1606	0.0352

Mercury	38721-05-18 22:34 G	15863752.38	15863752.44	15863752.49	0.1933	0.1689
Mercury	38742-02-04 06:14 G	15871318.68	15871318.76	15871318.85	0.1925	0.1280
Mercury	38748-09-24 14:38 G	15873743.00	15873743.11	15873743.22	0.1609	0.1172
Venus	38749-06-22 13:26 G	15874013.89	15874014.06	15874014.23	0.1947	0.0583
Venus	38750-05-25 02:10 G	15874350.47	15874350.59	15874350.71	0.1589	0.1130
Mercury	38751-06-27 14:24 G	15874748.98	15874749.10	15874749.21	0.1929	0.0127
Mercury	38758-02-14 16:48 G	15877173.03	15877173.20	15877173.36	0.1606	0.0148
Mercury	38760-11-16 22:19 G	15878179.37	15878179.43	15878179.50	0.1933	0.1546
Mercury	38767-07-07 18:43 G	15880603.22	15880603.28	15880603.35	0.1603	0.1468
Mercury	38781-08-05 06:29 G	15885745.69	15885745.77	15885745.84	0.1925	0.1461
Venus	38782-05-23 16:19 G	15886037.03	15886037.18	15886037.33	0.1588	0.0766
Mercury	38788-03-25 15:22 G	15888170.06	15888170.14	15888170.22	0.1609	0.1383
Mercury	38790-12-26 14:24 G	15889175.98	15889176.10	15889176.21	0.1929	0.0044
Earth	38792-02-19 14:53 G	15889595.94	15889596.12	15889596.30	0.1657	0.0484
Moon	38792-02-19 19:41 G	15889596.16	15889596.32	15889596.49	0.1657	0.0639 *
Mercury	38797-08-15 17:31 G	15891600.06	15891600.23	15891600.39	0.1606	0.0073
Mercury	38800-05-17 22:19 G	15892606.35	15892606.43	15892606.51	0.1933	0.1382
Mercury	38807-01-05 19:26 G	15895030.21	15895030.31	15895030.42	0.1603	0.1251
Venus	38815-04-19 15:07 G	15898056.02	15898056.13	15898056.24	0.1946	0.1524
Venus	38816-03-21 15:07 G	15898393.04	15898393.13	15898393.21	0.1589	0.1361
Mercury	38821-02-03 06:14 G	15900172.70	15900172.76	15900172.82	0.1925	0.1604
Mercury	38827-09-24 15:50 G	15902597.13	15902597.16	15902597.19	0.1609	0.1580
Mercury	38830-06-26 14:24 G	15903602.98	15903603.10	15903603.21	0.1929	0.0203
Mercury	38837-02-13 18:00 G	15906027.09	15906027.25	15906027.42	0.1607	0.0277
Mercury	38839-11-16 22:34 G	15907033.35	15907033.44	15907033.52	0.1933	0.1206
Mercury	38846-07-06 20:10 G	15909457.21	15909457.34	15909457.47	0.1604	0.1042
Venus	38848-03-20 05:17 G	15910079.56	15910079.72	15910079.89	0.1588	0.0541
Mercury	38860-08-04 06:14 G	15914599.72	15914599.76	15914599.80	0.1925	0.1769
Mercury	38869-12-25 14:24 G	15918029.98	15918030.10	15918030.21	0.1929	0.0366
Mercury	38876-08-14 18:43 G	15920454.12	15920454.28	15920454.44	0.1606	0.0480

Mercury	38879-05-17 22:19 G	15921460.33	15921460.43	15921460.52	0.1933	0.1071
Venus	38882-01-17 04:19 G	15922435.67	15922435.68	15922435.69	0.1590	0.1582
Mercury	38886-01-04 20:53 G	15923884.23	15923884.37	15923884.51	0.1604	0.0838
Mercury	38909-06-26 14:24 G	15932456.98	15932457.10	15932457.21	0.1929	0.0522
Venus	38914-01-16 18:43 G	15934122.11	15934122.28	15934122.45	0.1589	0.0324
Mercury	38916-02-14 19:26 G	15934881.16	15934881.31	15934881.46	0.1607	0.0696
Mercury	38918-11-16 22:19 G	15935887.33	15935887.43	15935887.53	0.1933	0.0893
Earth	38924-08-21 07:55 G	15937991.63	15937991.83	15937992.02	0.1883	0.0464
Moon	38924-08-21 16:48 G	15937992.03	15937992.20	15937992.38	0.1882	0.0870
Mercury	38925-07-06 21:36 G	15938311.24	15938311.40	15938311.55	0.1604	0.0624
Mercury	38948-12-25 14:24 G	15946883.99	15946884.10	15946884.20	0.1929	0.0688
Mercury	38955-08-15 20:10 G	15949308.20	15949308.34	15949308.48	0.1607	0.0901
Mercury	38958-05-17 22:19 G	15950314.33	15950314.43	15950314.54	0.1933	0.0728
Mercury	38965-01-04 22:19 G	15952738.26	15952738.43	15952738.59	0.1604	0.0416
Venus	38978-12-12 22:34 G	15957828.32	15957828.44	15957828.56	0.1947	0.1400
Venus	38979-11-14 07:55 G	15958164.65	15958164.83	15958165.00	0.1589	0.0102
Mercury	38988-06-25 14:10 G	15961310.99	15961311.09	15961311.20	0.1929	0.0849
Mercury	38995-02-13 20:38 G	15963735.24	15963735.36	15963735.48	0.1607	0.1107
Moon	38997-02-18 10:19 G	15964470.77	15964470.93	15964471.09	0.1648	0.0992
Earth	38997-02-18 14:38 G	15964470.95	15964471.11	15964471.27	0.1648	0.0835 *
Mercury	38997-11-15 22:19 G	15964741.32	15964741.43	15964741.54	0.1933	0.0584

40TH MILLENNIUM CE

This is a list of transits visible from Mars in the 40th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Mercury	39004-07-06 22:48 G	15967165.29	15967165.45	15967165.62	0.1604	0.0213
Mercury	39013-11-27 00:58 G	15970595.49	15970595.54	15970595.59	0.1601	0.1524
Mercury	39027-12-26 14:10 G	15975738.00	15975738.09	15975738.19	0.1928	0.1009
Mercury	39034-08-15 21:36 G	15978162.30	15978162.40	15978162.49	0.1607	0.1319
Mercury	39037-05-17 22:19 G	15979168.32	15979168.43	15979168.54	0.1932	0.0418
Mercury	39044-01-05 23:31 G	15981592.32	15981592.48	15981592.65	0.1604	0.0028
Venus	39044-10-09 23:17 G	15981870.30	15981870.47	15981870.64	0.1946	0.0424
Venus	39045-09-11 21:07 G	15982207.21	15982207.38	15982207.55	0.1589	0.0119
Mercury	39046-10-08 06:29 G	15982598.73	15982598.77	15982598.80	0.1936	0.1828
Mercury	39053-05-28 01:26 G	15985022.47	15985022.56	15985022.66	0.1601	0.1324
Mercury	39067-06-26 14:10 G	15990165.00	15990165.09	15990165.18	0.1929	0.1167
Mercury	39074-02-13 22:05 G	15992589.37	15992589.42	15992589.47	0.1607	0.1526
Earth	39076-02-22 18:00 G	15993328.12	15993328.25	15993328.38	0.1652	0.1184
Moon	39076-02-22 21:36 G	15993328.28	15993328.40	15993328.52	0.1652	0.1292 *
Mercury	39076-11-15 22:19 G	15993595.32	15993595.43	15993595.55	0.1932	0.0241
Mercury	39083-07-07 00:14 G	15996019.34	15996019.51	15996019.68	0.1604	0.0213
Mercury	39086-04-08 06:14 G	15997025.71	15997025.76	15997025.82	0.1936	0.1677
Mercury	39092-11-26 02:24 G	15999449.48	15999449.60	15999449.72	0.1601	0.1106
Mercury	39106-12-26 14:10 G	16004592.01	16004592.09	16004592.17	0.1928	0.1336
Venus	39110-08-08 01:12 G	16005912.38	16005912.55	16005912.72	0.1945	0.0509
Venus	39111-07-11 09:50 G	16006249.74	16006249.91	16006250.08	0.1590	0.0354
Mercury	39116-05-17 22:05 G	16008022.31	16008022.42	16008022.54	0.1932	0.0110
Mercury	39123-01-06 00:58 G	16010446.38	16010446.54	16010446.70	0.1604	0.0417
Mercury	39125-10-08 06:29 G	16011452.70	16011452.77	16011452.84	0.1936	0.1497
Mercury	39132-05-28 02:53 G	16013876.48	16013876.62	16013876.76	0.1602	0.0901
Venus	39143-07-10 00:14 G	16017936.48	16017936.51	16017936.54	0.1589	0.1559
Mercury	39146-06-26 14:10 G	16019019.02	16019019.09	16019019.16	0.1928	0.1487
Mercury	39155-11-16 22:19 G	16022449.31	16022449.43	16022449.54	0.1932	0.0090

Mercury	39162-07-07 01:41 G	16024873.41	16024873.57	16024873.72	0.1604	0.0629
Mercury	39165-04-08 06:14 G	16025879.68	16025879.76	16025879.84	0.1935	0.1356
Mercury	39171-11-27 03:36 G	16028303.50	16028303.65	16028303.80	0.1602	0.0696
Venus	39176-06-04 01:41 G	16029954.46	16029954.57	16029954.68	0.1944	0.1498
Venus	39177-05-07 23:17 G	16030292.31	16030292.47	16030292.63	0.1591	0.0570
Mercury	39185-12-25 14:10 G	16033446.04	16033446.09	16033446.15	0.1928	0.1661
Mercury	39195-05-17 22:19 G	16036876.31	16036876.43	16036876.54	0.1932	0.0245
Mercury	39202-01-05 02:10 G	16039300.45	16039300.59	16039300.74	0.1604	0.0839
Mercury	39204-10-07 06:14 G	16040306.67	16040306.76	16040306.85	0.1935	0.1192
Moon	39208-08-22 05:31 G	16041721.59	16041721.73	16041721.86	0.1892	0.1448
Earth	39208-08-22 14:24 G	16041721.92	16041722.10	16041722.28	0.1891	0.0879
Venus	39209-05-06 13:26 G	16041978.97	16041979.06	16041979.16	0.1589	0.1339
Mercury	39211-05-28 04:19 G	16042730.52	16042730.68	16042730.84	0.1602	0.0479
Mercury	39225-06-25 14:10 G	16047873.05	16047873.09	16047873.12	0.1928	0.1817
Mercury	39234-11-15 22:05 G	16051303.31	16051303.42	16051303.53	0.1932	0.0385
Mercury	39241-07-06 02:53 G	16053727.49	16053727.62	16053727.75	0.1605	0.1042
Venus	39243-03-05 12:00 G	16054334.85	16054335.00	16054335.15	0.1591	0.0805
Mercury	39244-04-07 06:14 G	16054733.67	16054733.76	16054733.86	0.1935	0.1023
Mercury	39250-11-26 05:02 G	16057157.54	16057157.71	16057157.87	0.1602	0.0270
Mercury	39260-04-17 06:58 G	16060587.78	16060587.79	16060587.80	0.1599	0.1594
Mercury	39274-05-16 22:05 G	16065730.31	16065730.42	16065730.53	0.1932	0.0555
Venus	39275-03-04 02:24 G	16066021.48	16066021.60	16066021.73	0.1590	0.1111
Mercury	39281-01-04 03:36 G	16068154.55	16068154.65	16068154.75	0.1605	0.1256
Moon	39281-02-21 16:05 G	16068202.99	16068203.17	16068203.34	0.1644	0.0179
Earth	39281-02-21 18:14 G	16068203.08	16068203.26	16068203.45	0.1644	0.0123 *
Mercury	39283-10-07 06:14 G	16069160.66	16069160.76	16069160.86	0.1935	0.0869
Mercury	39290-05-27 05:31 G	16071584.56	16071584.73	16071584.90	0.1602	0.0073
Mercury	39299-10-17 07:41 G	16075014.74	16075014.82	16075014.90	0.1600	0.1388
Venus	39309-01-01 01:12 G	16078377.42	16078377.55	16078377.68	0.1592	0.1031
Mercury	39313-11-15 22:05 G	16080157.32	16080157.42	16080157.53	0.1931	0.0732

Mercury	39320-07-06 04:19 G	16082581.61	16082581.68	16082581.74	0.1605	0.1464
Mercury	39323-04-08 06:14 G	16083587.65	16083587.76	16083587.86	0.1935	0.0717
Mercury	39329-11-26 06:29 G	16086011.60	16086011.77	16086011.93	0.1602	0.0153
Mercury	39339-04-18 08:10 G	16089441.73	16089441.84	16089441.96	0.1600	0.1181
Venus	39340-01-28 09:22 G	16089726.77	16089726.89	16089727.00	0.1946	0.1445
Venus	39340-12-30 15:50 G	16090064.01	16090064.16	16090064.30	0.1590	0.0891
Mercury	39353-05-16 22:05 G	16094584.31	16094584.42	16094584.52	0.1932	0.0867
Mercury	39362-10-07 06:14 G	16098014.65	16098014.76	16098014.87	0.1935	0.0535
Mercury	39369-05-27 06:58 G	16100438.63	16100438.79	16100438.95	0.1602	0.0354
Venus	39374-10-29 14:24 G	16102420.00	16102420.10	16102420.20	0.1592	0.1259
Mercury	39378-10-17 09:07 G	16103868.75	16103868.88	16103869.01	0.1600	0.0964
Mercury	39392-11-14 22:05 G	16109011.32	16109011.42	16109011.52	0.1931	0.1044
Mercury	39402-04-08 06:00 G	16112441.64	16112441.75	16112441.87	0.1935	0.0401
Venus	39405-11-25 10:34 G	16113768.77	16113768.94	16113769.11	0.1944	0.0481
Venus	39406-10-29 04:48 G	16114106.54	16114106.70	16114106.86	0.1591	0.0662
Mercury	39408-11-26 07:41 G	16114865.66	16114865.82	16114865.97	0.1602	0.0560
Mercury	39411-08-29 14:10 G	16115872.06	16115872.09	16115872.13	0.1938	0.1815
Mercury	39418-04-18 09:36 G	16118295.76	16118295.90	16118296.05	0.1600	0.0760
Mercury	39432-05-16 22:05 G	16123438.33	16123438.42	16123438.51	0.1931	0.1204
Venus	39440-08-27 03:22 G	16126462.58	16126462.64	16126462.70	0.1593	0.1493
Mercury	39441-10-07 06:14 G	16126868.64	16126868.76	16126868.87	0.1935	0.0239
Mercury	39448-05-27 08:24 G	16129292.70	16129292.85	16129292.99	0.1602	0.0774
Mercury	39451-02-27 14:10 G	16130299.03	16130299.09	16130299.15	0.1938	0.1655
Mercury	39457-10-17 10:19 G	16132722.77	16132722.93	16132723.09	0.1600	0.0553
Venus	39471-09-22 11:31 G	16137810.81	16137810.98	16137811.15	0.1943	0.0500
Mercury	39471-11-15 22:05 G	16137865.34	16137865.42	16137865.50	0.1931	0.1359
Venus	39472-08-25 18:00 G	16138149.08	16138149.25	16138149.42	0.1591	0.0440
Mercury	39481-04-07 06:14 G	16141295.64	16141295.76	16141295.87	0.1935	0.0086
Earth	39486-02-22 19:26 G	16143078.22	16143078.31	16143078.41	0.1636	0.1381
Moon	39486-02-22 23:02 G	16143078.33	16143078.46	16143078.58	0.1637	0.1243 *

Mercury	39487-11-26 09:07 G	16143719.74	16143719.88	16143720.01	0.1602	0.0984
Mercury	39490-08-28 14:10 G	16144726.02	16144726.09	16144726.16	0.1938	0.1494
Mercury	39497-04-17 11:02 G	16147149.80	16147149.96	16147150.13	0.1600	0.0339
Mercury	39511-05-17 21:50 G	16152292.35	16152292.41	16152292.48	0.1931	0.1528
Mercury	39520-10-07 06:00 G	16155722.64	16155722.75	16155722.87	0.1934	0.0096
Mercury	39527-05-28 09:36 G	16158146.79	16158146.90	16158147.01	0.1602	0.1183
Mercury	39530-02-27 14:10 G	16159153.01	16159153.09	16159153.17	0.1938	0.1340
Mercury	39536-10-17 11:46 G	16161576.82	16161576.99	16161577.16	0.1600	0.0131
Venus	39537-07-20 13:26 G	16161852.94	16161853.06	16161853.17	0.1942	0.1429
Venus	39538-06-24 06:43 G	16162191.61	16162191.78	16162191.96	0.1592	0.0209
Mercury	39546-03-09 13:41 G	16165007.00	16165007.07	16165007.14	0.1598	0.1453
Mercury	39550-11-15 22:05 G	16166719.37	16166719.42	16166719.47	0.1931	0.1696
Mercury	39560-04-07 06:00 G	16170149.64	16170149.75	16170149.86	0.1935	0.0250
Earth	39565-02-25 21:36 G	16171935.23	16171935.40	16171935.58	0.1640	0.0582
Moon	39565-02-26 04:19 G	16171935.51	16171935.68	16171935.85	0.1640	0.0684 *
Mercury	39566-11-26 10:19 G	16172573.85	16172573.93	16172574.01	0.1603	0.1402
Mercury	39569-08-28 14:10 G	16173580.00	16173580.09	16173580.18	0.1937	0.1171
Mercury	39576-04-17 12:14 G	16176003.85	16176004.01	16176004.18	0.1600	0.0082
Mercury	39585-09-07 14:10 G	16179433.99	16179434.09	16179434.20	0.1598	0.1252
Mercury	39590-05-16 21:50 G	16181146.38	16181146.41	16181146.44	0.1931	0.1839
Mercury	39599-10-07 06:00 G	16184576.64	16184576.75	16184576.87	0.1934	0.0438
Venus	39604-04-20 19:55 G	16186234.16	16186234.33	16186234.51	0.1593	0.0022
Mercury	39609-02-26 13:55 G	16188006.99	16188007.08	16188007.18	0.1937	0.1021
Mercury	39615-10-17 13:12 G	16190430.88	16190431.05	16190431.21	0.1600	0.0293
Mercury	39625-03-08 15:07 G	16193861.00	16193861.13	16193861.25	0.1598	0.1036
Mercury	39639-04-07 05:46 G	16199003.64	16199003.74	16199003.85	0.1934	0.0574
Mercury	39648-08-27 14:10 G	16202433.98	16202434.09	16202434.19	0.1938	0.0855
Mercury	39655-04-17 13:41 G	16204857.91	16204858.07	16204858.23	0.1600	0.0496
Mercury	39664-09-06 15:36 G	16208288.01	16208288.15	16208288.30	0.1598	0.0828
Venus	39670-02-16 08:38 G	16210276.69	16210276.86	16210277.03	0.1593	0.0256

Mercury	39678-10-06 06:00 G	16213430.64	16213430.75	16213430.85	0.1934	0.0743
Mercury	39688-02-26 13:55 G	16216860.98	16216861.08	16216861.19	0.1937	0.0696
Mercury	39694-10-16 14:24 G	16219284.95	16219285.10	16219285.25	0.1600	0.0703
Venus	39701-03-14 20:24 G	16221625.24	16221625.35	16221625.46	0.1943	0.1489
Mercury	39704-03-08 16:19 G	16222715.03	16222715.18	16222715.34	0.1598	0.0619
Mercury	39718-04-07 06:00 G	16227857.65	16227857.75	16227857.85	0.1934	0.0912
Mercury	39727-08-28 13:55 G	16231287.97	16231288.08	16231288.19	0.1937	0.0535
Mercury	39734-04-17 15:07 G	16233711.99	16233712.13	16233712.27	0.1600	0.0919
Venus	39735-12-15 21:50 G	16234319.24	16234319.41	16234319.58	0.1594	0.0482
Mercury	39743-09-07 17:02 G	16237142.05	16237142.21	16237142.37	0.1598	0.0406
Mercury	39757-10-06 05:46 G	16242284.65	16242284.74	16242284.84	0.1934	0.1059
Venus	39767-01-09 21:36 G	16245667.23	16245667.40	16245667.57	0.1942	0.0527
Mercury	39767-02-26 13:55 G	16245714.97	16245715.08	16245715.19	0.1937	0.0371
Venus	39767-12-14 12:29 G	16246005.96	16246006.02	16246006.09	0.1592	0.1458
Moon	39770-02-25 17:46 G	16246810.08	16246810.24	16246810.40	0.1632	0.0787
Earth	39770-02-26 00:29 G	16246810.34	16246810.52	16246810.69	0.1633	0.0640 *
Mercury	39773-10-16 15:50 G	16248139.04	16248139.16	16248139.27	0.1601	0.1128
Mercury	39776-07-18 22:05 G	16249145.38	16249145.42	16249145.46	0.1940	0.1805
Mercury	39783-03-08 17:46 G	16251569.07	16251569.24	16251569.41	0.1598	0.0195
Mercury	39792-07-28 19:41 G	16254999.28	16254999.32	16254999.37	0.1596	0.1519
Mercury	39797-04-06 05:46 G	16256711.65	16256711.74	16256711.83	0.1934	0.1223
Venus	39801-10-13 11:02 G	16258361.80	16258361.96	16258362.11	0.1595	0.0716
Mercury	39806-08-28 13:55 G	16260141.97	16260142.08	16260142.19	0.1937	0.0208
Mercury	39813-04-17 16:19 G	16262566.09	16262566.18	16262566.27	0.1601	0.1331
Mercury	39816-01-18 21:50 G	16263572.36	16263572.41	16263572.47	0.1940	0.1661
Mercury	39822-09-07 18:29 G	16265996.10	16265996.27	16265996.43	0.1598	0.0037
Mercury	39832-01-28 20:24 G	16269426.26	16269426.35	16269426.45	0.1596	0.1309
Venus	39832-11-06 23:02 G	16269709.29	16269709.46	16269709.63	0.1940	0.0434
Venus	39833-10-12 01:26 G	16270048.46	16270048.56	16270048.67	0.1593	0.1225
Mercury	39836-10-06 06:00 G	16271138.67	16271138.75	16271138.82	0.1934	0.1407

Mercury	39846-02-26 13:55 G	16274568.96	16274569.08	16274569.19	0.1937	0.0077
Moon	39849-03-01 00:14 G	16275667.40	16275667.51	16275667.63	0.1635	0.1346
Earth	39849-03-01 02:10 G	16275667.48	16275667.59	16275667.70	0.1636	0.1304 *
Mercury	39852-10-16 17:02 G	16276993.17	16276993.21	16276993.25	0.1601	0.1547
Mercury	39855-07-19 21:50 G	16277999.34	16277999.41	16277999.49	0.1940	0.1492
Earth	39855-08-30 08:10 G	16278040.67	16278040.84	16278041.01	0.1901	0.0981
Moon	39855-08-30 15:50 G	16278041.05	16278041.16	16278041.27	0.1901	0.1560
Mercury	39862-03-08 19:12 G	16280423.13	16280423.30	16280423.46	0.1598	0.0228
Venus	39867-08-10 23:46 G	16282404.35	16282404.49	16282404.63	0.1596	0.0954
Mercury	39871-07-29 21:07 G	16283853.26	16283853.38	16283853.50	0.1596	0.1105
Mercury	39876-04-06 05:46 G	16285565.67	16285565.74	16285565.80	0.1934	0.1541
Mercury	39885-08-27 13:55 G	16288995.96	16288996.08	16288996.19	0.1937	0.0124
Mercury	39895-01-17 22:05 G	16292426.33	16292426.42	16292426.50	0.1939	0.1323
Venus	39898-09-04 00:00 G	16293751.38	16293751.50	16293751.62	0.1939	0.1396
Venus	39899-08-09 14:38 G	16294090.97	16294091.11	16294091.24	0.1593	0.1000
Mercury	39901-09-07 19:55 G	16294850.16	16294850.33	16294850.49	0.1598	0.0438
Mercury	39911-01-28 21:50 G	16298280.27	16298280.41	16298280.55	0.1597	0.0886
Mercury	39915-10-07 05:46 G	16299992.69	16299992.74	16299992.79	0.1934	0.1718
Mercury	39925-02-26 13:41 G	16303422.96	16303423.07	16303423.19	0.1936	0.0281
Venus	39933-06-08 12:58 G	16306446.92	16306447.04	16306447.15	0.1597	0.1184
Mercury	39934-07-19 21:50 G	16306853.32	16306853.41	16306853.50	0.1940	0.1180
Mercury	39941-03-08 20:24 G	16309277.20	16309277.35	16309277.51	0.1599	0.0644
Mercury	39950-07-29 22:34 G	16312707.28	16312707.44	16312707.59	0.1597	0.0678
Mercury	39955-04-07 05:46 G	16314419.72	16314419.74	16314419.76	0.1933	0.1886
Mercury	39964-08-27 13:41 G	16317849.96	16317850.07	16317850.19	0.1937	0.0440
Venus	39965-06-07 03:36 G	16318133.50	16318133.65	16318133.80	0.1594	0.0768
Mercury	39974-01-17 21:50 G	16321280.31	16321280.41	16321280.51	0.1939	0.1003
Mercury	39980-09-06 21:07 G	16323704.24	16323704.38	16323704.52	0.1599	0.0855
Mercury	39990-01-27 23:02 G	16327134.30	16327134.46	16327134.62	0.1597	0.0474
Venus	39999-04-06 01:26 G	16330489.49	16330489.56	16330489.64	0.1598	0.1430

41ST MILLENNIUM CE

This is a list of transits visible from Mars in the 41st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	40004-02-26 13:41	G	16332276.97	16332277.07	16332277.18	0.1937	0.0608	
Mercury	40013-07-18 21:50	G	16335707.31	16335707.41	16335707.51	0.1939	0.0842	
Mercury	40020-03-07 21:50	G	16338131.29	16338131.41	16338131.53	0.1599	0.1069	
Mercury	40029-07-29 00:00	G	16341561.33	16341561.50	16341561.66	0.1597	0.0255	
Venus	40031-04-04 16:34	G	16342176.02	16342176.19	16342176.35	0.1595	0.0539	
Mercury	40038-12-19 01:41	G	16344991.56	16344991.57	16344991.59	0.1595	0.1585	
Mercury	40043-08-27 13:41	G	16346703.97	16346704.07	16346704.18	0.1936	0.0764	
Mercury	40053-01-16 21:50	G	16350134.30	16350134.41	16350134.51	0.1939	0.0696	
Earth	40054-03-01 05:46	G	16350542.55	16350542.74	16350542.92	0.1629	0.0117	
Moon	40054-03-01 06:43	G	16350542.60	16350542.78	16350542.95	0.1629	0.0085	*
Mercury	40059-09-06 22:34	G	16352558.34	16352558.44	16352558.54	0.1599	0.1275	
Venus	40062-04-29 07:55	G	16353523.73	16353523.83	16353523.93	0.1941	0.1565	
Mercury	40069-01-27 00:29	G	16355988.35	16355988.52	16355988.69	0.1597	0.0053	
Mercury	40078-06-19 02:24	G	16359418.52	16359418.60	16359418.69	0.1595	0.1371	
Mercury	40083-02-25 13:41	G	16361130.97	16361131.07	16361131.17	0.1936	0.0920	
Mercury	40092-07-17 21:50	G	16364561.30	16364561.41	16364561.52	0.1939	0.0522	
Venus	40097-01-30 05:17	G	16366218.55	16366218.72	16366218.89	0.1596	0.0302	
Mercury	40099-03-07 23:17	G	16366985.41	16366985.47	16366985.52	0.1599	0.1491	
Mercury	40108-07-29 01:12	G	16370415.38	16370415.55	16370415.72	0.1597	0.0163	

Mercury	40117-12-19 03:07 G	16373845.52	16373845.63	16373845.75	0.1595	0.1160
Mercury	40122-08-27 13:41 G	16375557.98	16375558.07	16375558.17	0.1936	0.1098
Venus	40128-02-25 09:07 G	16377565.71	16377565.88	16377566.04	0.1939	0.0598
Mercury	40132-01-17 21:50 G	16378988.30	16378988.41	16378988.52	0.1939	0.0354
Moon	40139-08-31 05:17 G	16381770.53	16381770.72	16381770.92	0.1909	0.0898
Earth	40139-08-31 09:50 G	16381770.72	16381770.91	16381771.10	0.1909	0.0743 *
Mercury	40141-06-09 05:46 G	16382418.70	16382418.74	16382418.78	0.1941	0.1808
Mercury	40148-01-28 01:55 G	16384842.42	16384842.58	16384842.75	0.1597	0.0382
Mercury	40157-06-19 03:50 G	16388272.52	16388272.66	16388272.79	0.1595	0.0951
Mercury	40162-02-25 13:41 G	16389984.98	16389985.07	16389985.15	0.1936	0.1251
Venus	40162-11-28 18:29 G	16390261.09	16390261.27	16390261.44	0.1597	0.0075
Mercury	40171-07-18 21:36 G	16393415.29	16393415.40	16393415.51	0.1939	0.0207
Mercury	40180-12-08 06:00 G	16396845.69	16396845.75	16396845.81	0.1941	0.1628
Mercury	40187-07-29 02:38 G	16399269.45	16399269.61	16399269.76	0.1597	0.0592
Venus	40193-12-22 10:48 G	16401607.77	16401607.95	16401608.12	0.1938	0.0352
Mercury	40196-12-18 04:34 G	16402699.54	16402699.69	16402699.84	0.1595	0.0732
Mercury	40201-08-27 13:41 G	16404411.99	16404412.07	16404412.14	0.1936	0.1415
Mercury	40211-01-17 21:36 G	16407842.29	16407842.40	16407842.52	0.1939	0.0082
Mercury	40220-06-09 05:46 G	16411272.67	16411272.74	16411272.81	0.1941	0.1491
Mercury	40227-01-28 03:07 G	16413696.49	16413696.63	16413696.78	0.1597	0.0801
Venus	40228-09-26 07:26 G	16414303.63	16414303.81	16414303.98	0.1598	0.0162
Mercury	40236-06-19 05:17 G	16417126.56	16417126.72	16417126.88	0.1595	0.0523
Mercury	40241-02-25 13:41 G	16418839.01	16418839.07	16418839.13	0.1936	0.1589
Mercury	40250-07-18 21:36 G	16422269.29	16422269.40	16422269.52	0.1938	0.0136
Moon	40259-03-02 07:55 G	16425417.67	16425417.83	16425417.99	0.1623	0.0996
Earth	40259-03-02 09:50 G	16425417.77	16425417.91	16425418.06	0.1623	0.1033 *
Venus	40259-10-20 12:14 G	16425649.88	16425650.01	16425650.14	0.1935	0.1292
Mercury	40259-12-09 05:46 G	16425699.66	16425699.74	16425699.82	0.1941	0.1315
Mercury	40266-07-29 04:05 G	16428123.54	16428123.67	16428123.80	0.1597	0.1019
Mercury	40275-12-19 06:00 G	16431553.58	16431553.75	16431553.91	0.1595	0.0314

Mercury	40280-08-26 13:26 G	16433266.02	16433266.06	16433266.11	0.1936	0.1744
Mercury	40290-01-16 21:36 G	16436696.29	16436696.40	16436696.51	0.1939	0.0288
Venus	40294-07-24 20:10 G	16438346.17	16438346.34	16438346.51	0.1599	0.0401
Mercury	40299-06-09 05:46 G	16440126.65	16440126.74	16440126.83	0.1941	0.1144
Mercury	40306-01-28 04:34 G	16442550.59	16442550.69	16442550.80	0.1597	0.1231
Mercury	40315-06-20 06:43 G	16445980.61	16445980.78	16445980.95	0.1595	0.0096
Mercury	40320-02-26 13:26 G	16447693.05	16447693.06	16447693.08	0.1936	0.1904
Mercury	40324-11-09 08:38 G	16449410.79	16449410.86	16449410.93	0.1594	0.1426
Venus	40326-07-24 11:17 G	16450032.95	16450032.97	16450033.00	0.1596	0.1577
Mercury	40329-07-18 21:36 G	16451123.29	16451123.40	16451123.51	0.1938	0.0460
Earth	40338-03-05 11:46 G	16454274.83	16454274.99	16454275.15	0.1625	0.0884
Moon	40338-03-05 17:02 G	16454275.05	16454275.21	16454275.38	0.1626	0.0880 *
Mercury	40338-12-09 05:31 G	16454553.64	16454553.73	16454553.83	0.1941	0.1001
Mercury	40345-07-29 05:17 G	16456977.65	16456977.72	16456977.79	0.1597	0.1434
Mercury	40354-12-19 07:26 G	16460407.64	16460407.81	16460407.98	0.1596	0.0117
Venus	40360-05-22 09:22 G	16462388.73	16462388.89	16462389.05	0.1600	0.0632
Mercury	40364-05-10 09:22 G	16463837.78	16463837.89	16463838.00	0.1594	0.1213
Mercury	40369-01-16 21:36 G	16465550.29	16465550.40	16465550.51	0.1938	0.0626
Mercury	40378-06-09 05:31 G	16468980.63	16468980.73	16468980.84	0.1941	0.0836
Venus	40392-05-21 00:14 G	16474075.42	16474075.51	16474075.60	0.1597	0.1340
Mercury	40394-06-19 08:10 G	16474834.67	16474834.84	16474835.00	0.1596	0.0328
Mercury	40403-11-09 10:05 G	16478264.79	16478264.92	16478265.05	0.1594	0.1005
Mercury	40408-07-17 21:36 G	16479977.29	16479977.40	16479977.50	0.1939	0.0781
Mercury	40417-12-08 05:46 G	16483407.63	16483407.74	16483407.85	0.1940	0.0650
Venus	40423-06-14 19:26 G	16485422.22	16485422.31	16485422.40	0.1937	0.1648
Venus	40426-03-19 21:50 G	16486431.27	16486431.41	16486431.56	0.1601	0.0883
Mercury	40433-12-18 08:53 G	16489261.71	16489261.87	16489262.03	0.1596	0.0546
Mercury	40443-05-10 10:48 G	16492691.80	16492691.95	16492692.09	0.1594	0.0789
Mercury	40448-01-16 21:36 G	16494404.30	16494404.40	16494404.50	0.1938	0.0956
Mercury	40457-06-08 05:31 G	16497834.62	16497834.73	16497834.84	0.1940	0.0513

Venus	40458-03-18 13:12 G	16498117.92	16498118.05	16498118.17	0.1598	0.1110
Mercury	40466-10-29 13:55 G	16501265.07	16501265.08	16501265.08	0.1943	0.1938
Mercury	40473-06-18 09:36 G	16503688.75	16503688.90	16503689.04	0.1596	0.0755
Mercury	40482-11-08 11:31 G	16507118.82	16507118.98	16507119.14	0.1594	0.0572
Mercury	40487-07-17 21:36 G	16508831.30	16508831.40	16508831.49	0.1938	0.1116
Venus	40489-04-10 21:36 G	16509464.23	16509464.40	16509464.56	0.1936	0.0721
Venus	40492-01-15 11:02 G	16510473.84	16510473.96	16510474.08	0.1602	0.1116
Mercury	40496-12-07 05:31 G	16512261.62	16512261.73	16512261.85	0.1940	0.0340
Mercury	40506-04-30 13:41 G	16515692.03	16515692.07	16515692.11	0.1942	0.1785
Mercury	40512-12-18 10:05 G	16518115.79	16518115.92	16518116.06	0.1596	0.0964
Mercury	40522-05-10 12:14 G	16521545.84	16521546.01	16521546.17	0.1594	0.0366
Venus	40524-01-15 01:55 G	16522160.44	16522160.58	16522160.73	0.1599	0.0874
Mercury	40527-01-16 21:22 G	16523258.31	16523258.39	16523258.48	0.1938	0.1279
Mercury	40536-06-08 05:31 G	16526688.62	16526688.73	16526688.85	0.1940	0.0182
Moon	40543-03-05 11:02 G	16529149.78	16529149.96	16529150.14	0.1619	0.0259
Earth	40543-03-05 16:48 G	16529150.01	16529150.20	16529150.38	0.1620	0.0245 *
Mercury	40545-10-29 13:41 G	16530119.01	16530119.07	16530119.13	0.1942	0.1621
Mercury	40552-06-18 11:02 G	16532542.84	16532542.96	16532543.07	0.1596	0.1184
Venus	40555-02-06 22:48 G	16533506.28	16533506.45	16533506.62	0.1934	0.0235
Venus	40557-11-12 23:46 G	16534516.40	16534516.49	16534516.58	0.1604	0.1365
Mercury	40561-11-08 12:58 G	16535972.87	16535973.04	16535973.21	0.1594	0.0148
Mercury	40566-07-17 21:22 G	16537685.32	16537685.39	16537685.47	0.1938	0.1447
Mercury	40571-03-31 14:38 G	16539403.05	16539403.11	16539403.17	0.1593	0.1487
Mercury	40575-12-08 05:31 G	16541115.62	16541115.73	16541115.84	0.1940	0.0024
Mercury	40585-04-29 13:41 G	16544546.00	16544546.07	16544546.15	0.1942	0.1454
Venus	40589-11-11 15:07 G	16546202.97	16546203.13	16546203.29	0.1600	0.0641
Mercury	40591-12-18 11:31 G	16546969.91	16546969.98	16546970.06	0.1596	0.1398
Mercury	40601-05-10 13:41 G	16550399.90	16550400.07	16550400.24	0.1595	0.0077
Mercury	40606-01-16 21:22 G	16552112.33	16552112.39	16552112.45	0.1938	0.1612
Mercury	40610-09-30 15:22 G	16553830.04	16553830.14	16553830.25	0.1593	0.1267

Mercury	40615-06-09 05:31 G	16555542.62	16555542.73	16555542.84	0.1940	0.0152
Venus	40620-12-05 00:43 G	16557548.40	16557548.53	16557548.67	0.1932	0.1161
Moon	40622-03-08 12:29 G	16558006.93	16558007.02	16558007.12	0.1622	0.1395
Mercury	40624-10-29 13:41 G	16558972.99	16558973.07	16558973.15	0.1942	0.1290
Mercury	40640-11-08 14:10 G	16564826.93	16564827.09	16564827.26	0.1595	0.0279
Mercury	40645-07-17 21:22 G	16566539.35	16566539.39	16566539.43	0.1938	0.1768
Mercury	40650-03-31 16:05 G	16568257.05	16568257.17	16568257.30	0.1593	0.1054
Mercury	40654-12-08 05:31 G	16569969.62	16569969.73	16569969.85	0.1940	0.0340
Venus	40655-09-10 03:50 G	16570245.49	16570245.66	16570245.83	0.1601	0.0402
Mercury	40664-04-29 13:41 G	16573399.98	16573400.07	16573400.16	0.1942	0.1138
Mercury	40680-05-09 14:53 G	16579253.96	16579254.12	16579254.28	0.1595	0.0492
Mercury	40689-09-29 16:48 G	16582684.06	16582684.20	16582684.35	0.1593	0.0844
Mercury	40694-06-08 05:17 G	16584396.61	16584396.72	16584396.83	0.1940	0.0477
Mercury	40703-10-30 13:41 G	16587826.97	16587827.07	16587827.17	0.1942	0.0957
Mercury	40719-11-09 15:50 G	16593681.00	16593681.16	16593681.31	0.1595	0.0712
Venus	40721-07-08 16:48 G	16594288.02	16594288.20	16594288.37	0.1602	0.0163
Mercury	40729-03-31 17:31 G	16597111.08	16597111.23	16597111.39	0.1593	0.0625
Mercury	40733-12-08 05:31 G	16598823.62	16598823.73	16598823.84	0.1940	0.0652
Mercury	40743-04-30 13:26 G	16602253.96	16602254.06	16602254.17	0.1941	0.0812
Earth	40748-03-05 22:48 G	16604025.35	16604025.45	16604025.56	0.1615	0.1336
Moon	40748-03-06 04:34 G	16604025.58	16604025.69	16604025.80	0.1615	0.1320
Mercury	40759-05-10 16:19 G	16608108.04	16608108.18	16608108.32	0.1595	0.0919
Mercury	40768-09-29 18:14 G	16611538.10	16611538.26	16611538.43	0.1593	0.0412
Mercury	40773-06-08 05:31 G	16613250.63	16613250.73	16613250.83	0.1940	0.0820
Mercury	40782-10-29 13:41 G	16616680.96	16616681.07	16616681.17	0.1941	0.0644
Venus	40784-07-30 08:10 G	16617320.78	16617320.84	16617320.91	0.1934	0.1785
Earth	40786-09-07 01:55 G	16618089.41	16618089.58	16618089.75	0.1917	0.1061
Moon	40786-09-07 05:31 G	16618089.62	16618089.73	16618089.84	0.1917	0.1529 *
Venus	40787-05-06 05:46 G	16618330.56	16618330.74	16618330.91	0.1603	0.0089
Mercury	40798-11-08 17:02 G	16622535.09	16622535.21	16622535.33	0.1595	0.1134

Mercury	40808-03-30 18:58 G	16625965.12	16625965.29	16625965.46	0.1593	0.0204
Mercury	40812-12-07 05:17 G	16627677.63	16627677.72	16627677.82	0.1940	0.0971
Mercury	40817-08-20 20:53 G	16629395.33	16629395.37	16629395.41	0.1592	0.1534
Mercury	40822-04-29 13:26 G	16631107.95	16631108.06	16631108.18	0.1942	0.0478
Earth	40827-03-09 00:00 G	16632882.32	16632882.50	16632882.67	0.1617	0.0550
Moon	40827-03-09 04:34 G	16632882.53	16632882.69	16632882.85	0.1617	0.0758 *
Mercury	40831-09-19 21:50 G	16634538.39	16634538.41	16634538.42	0.1943	0.1923
Mercury	40838-05-09 17:46 G	16636962.15	16636962.24	16636962.33	0.1595	0.1348
Mercury	40847-09-29 19:41 G	16640392.15	16640392.32	16640392.49	0.1593	0.0033
Venus	40850-05-27 09:36 G	16641362.74	16641362.90	16641363.06	0.1932	0.0825
Mercury	40852-06-07 05:17 G	16642104.63	16642104.72	16642104.82	0.1940	0.1142
Venus	40853-03-02 18:14 G	16642373.09	16642373.26	16642373.43	0.1605	0.0329
Mercury	40857-02-18 21:36 G	16643822.31	16643822.40	16643822.49	0.1592	0.1323
Mercury	40861-10-28 13:26 G	16645534.95	16645535.06	16645535.17	0.1941	0.0315
Mercury	40871-03-20 21:36 G	16648965.36	16648965.40	16648965.44	0.1943	0.1776
Mercury	40877-11-07 18:29 G	16651389.24	16651389.27	16651389.30	0.1595	0.1559
Mercury	40887-03-30 20:24 G	16654819.18	16654819.35	16654819.52	0.1594	0.0233
Mercury	40891-12-07 05:31 G	16656531.64	16656531.73	16656531.81	0.1939	0.1320
Mercury	40896-08-19 22:19 G	16658249.31	16658249.43	16658249.55	0.1592	0.1103
Mercury	40901-04-29 13:26 G	16659961.95	16659962.06	16659962.17	0.1941	0.0157
Mercury	40910-09-19 21:36 G	16663392.34	16663392.40	16663392.46	0.1943	0.1598
Venus	40916-03-24 11:46 G	16665404.81	16665404.99	16665405.16	0.1930	0.0095
Venus	40918-12-30 07:12 G	16666415.64	16666415.80	16666415.96	0.1606	0.0568
Mercury	40926-09-29 21:07 G	16669246.22	16669246.38	16669246.54	0.1594	0.0439
Mercury	40931-06-08 05:17 G	16670958.64	16670958.72	16670958.79	0.1939	0.1457
Mercury	40936-02-19 23:02 G	16672676.32	16672676.46	16672676.60	0.1593	0.0894
Mercury	40940-10-28 13:26 G	16674388.95	16674389.06	16674389.18	0.1941	0.0050
Mercury	40950-03-20 21:36 G	16677819.33	16677819.40	16677819.47	0.1942	0.1440
Venus	40950-12-28 22:34 G	16678102.36	16678102.44	16678102.51	0.1602	0.1445
Mercury	40966-03-30 21:50 G	16683673.26	16683673.41	16683673.56	0.1594	0.0659

Mercury	40970-12-07 05:17 G	16685385.66	16685385.72	16685385.78	0.1939	0.1638
Mercury	40975-08-20 23:46 G	16687103.33	16687103.49	16687103.64	0.1592	0.0683
Mercury	40980-04-28 13:26 G	16688815.94	16688816.06	16688816.17	0.1941	0.0182
Venus	40982-01-19 13:26 G	16689446.91	16689447.06	16689447.20	0.1927	0.1019
Venus	40984-10-26 19:41 G	16690458.17	16690458.32	16690458.47	0.1608	0.0824
Mercury	40989-09-18 21:36 G	16692246.31	16692246.40	16692246.48	0.1943	0.1282

42ND MILLENNIUM CE

This is a list of transits visible from Mars in the 42nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	41005-09-29 22:34 G		16698100.30	16698100.44	16698100.58	0.1594	0.0871	
Mercury	41010-06-08 05:17 G		16699812.68	16699812.72	16699812.76	0.1939	0.1805	
Mercury	41015-02-20 00:29 G		16701530.36	16701530.52	16701530.68	0.1593	0.0460	
Venus	41016-10-26 11:17 G		16702144.86	16702144.97	16702145.09	0.1603	0.1208	
Mercury	41019-10-29 13:26 G		16703242.94	16703243.06	16703243.17	0.1941	0.0345	
Mercury	41029-03-20 21:36 G		16706673.30	16706673.40	16706673.49	0.1942	0.1116	
Moon	41032-03-09 01:55 G		16707757.41	16707757.58	16707757.76	0.1612	0.0712	
Earth	41032-03-09 06:29 G		16707757.60	16707757.77	16707757.95	0.1612	0.0532	*
Mercury	41045-03-30 23:17 G		16712527.34	16712527.47	16712527.59	0.1594	0.1081	
Venus	41050-08-25 08:24 G		16714500.72	16714500.85	16714500.98	0.1609	0.1070	
Mercury	41054-08-21 01:12 G		16715957.38	16715957.55	16715957.72	0.1593	0.0250	
Mercury	41059-04-29 13:26 G		16717669.95	16717670.06	16717670.17	0.1941	0.0514	
Mercury	41064-01-11 02:53 G		16719387.62	16719387.62	16719387.63	0.1592	0.1590	

Mercury	41068-09-18 21:36 G	16721100.30	16721100.40	16721100.49	0.1942	0.0952
Earth	41070-09-07 22:34 G	16721819.27	16721819.44	16721819.61	0.1923	0.1078
Moon	41070-09-08 00:14 G	16721819.31	16721819.51	16721819.72	0.1923	0.0729 *
Venus	41082-08-24 00:00 G	16726187.36	16726187.50	16726187.64	0.1605	0.0962
Mercury	41084-09-29 00:00 G	16726954.40	16726954.50	16726954.59	0.1594	0.1301
Mercury	41094-02-19 01:41 G	16730384.40	16730384.57	16730384.74	0.1593	0.0051
Mercury	41098-10-28 13:12 G	16732096.95	16732097.05	16732097.16	0.1941	0.0668
Mercury	41103-07-13 03:36 G	16733814.57	16733814.65	16733814.73	0.1592	0.1381
Mercury	41108-03-20 21:22 G	16735527.29	16735527.39	16735527.49	0.1943	0.0797
Earth	41111-03-13 06:58 G	16736614.69	16736614.79	16736614.89	0.1614	0.1337
Moon	41111-03-13 08:53 G	16736614.81	16736614.87	16736614.93	0.1614	0.1532 *
Venus	41116-06-22 20:53 G	16738543.27	16738543.37	16738543.47	0.1610	0.1331
Mercury	41124-03-31 00:29 G	16741381.48	16741381.52	16741381.58	0.1594	0.1514
Mercury	41133-08-21 02:38 G	16744811.44	16744811.61	16744811.78	0.1593	0.0182
Mercury	41138-04-29 13:12 G	16746523.95	16746524.05	16746524.15	0.1941	0.0825
Mercury	41143-01-11 04:19 G	16748241.57	16748241.68	16748241.80	0.1592	0.1163
Venus	41145-09-14 19:41 G	16749219.28	16749219.32	16749219.37	0.1929	0.1866
Mercury	41147-09-19 21:22 G	16749954.29	16749954.39	16749954.50	0.1942	0.0624
Venus	41148-06-21 12:43 G	16750229.88	16750230.03	16750230.19	0.1606	0.0718
Mercury	41173-02-19 03:07 G	16759238.47	16759238.63	16759238.80	0.1593	0.0393
Mercury	41177-10-28 13:12 G	16760950.96	16760951.05	16760951.15	0.1941	0.1013
Venus	41182-04-20 09:22 G	16762585.86	16762585.89	16762585.91	0.1612	0.1588
Mercury	41182-07-12 05:02 G	16762668.58	16762668.71	16762668.85	0.1592	0.0946
Mercury	41187-03-20 21:22 G	16764381.28	16764381.39	16764381.50	0.1942	0.0467
Mercury	41196-08-10 05:31 G	16767811.72	16767811.73	16767811.74	0.1943	0.1925
Venus	41211-07-12 22:19 G	16773261.28	16773261.43	16773261.58	0.1927	0.0966
Mercury	41212-08-20 03:50 G	16773665.50	16773665.66	16773665.82	0.1593	0.0602
Venus	41214-04-19 01:26 G	16774272.39	16774272.56	16774272.72	0.1607	0.0470
Mercury	41217-04-28 13:12 G	16775377.95	16775378.05	16775378.14	0.1940	0.1152
Mercury	41222-01-10 05:46 G	16777095.59	16777095.74	16777095.89	0.1592	0.0737

Mercury	41226-09-18 21:22 G	16778808.28	16778808.39	16778808.50	0.1942	0.0303
Mercury	41236-02-09 05:31 G	16782238.68	16782238.73	16782238.78	0.1943	0.1752
Earth	41237-03-09 12:58 G	16782633.02	16782633.04	16782633.07	0.1607	0.1591
Moon	41237-03-09 17:46 G	16782633.16	16782633.24	16782633.32	0.1608	0.1416
Mercury	41252-02-19 04:34 G	16788092.55	16788092.69	16788092.84	0.1593	0.0824
Mercury	41256-10-27 13:12 G	16789804.97	16789805.05	16789805.13	0.1941	0.1323
Mercury	41261-07-11 06:29 G	16791522.61	16791522.77	16791522.93	0.1592	0.0522
Mercury	41266-03-19 21:22 G	16793235.27	16793235.39	16793235.50	0.1942	0.0150
Mercury	41275-08-10 05:17 G	16796665.66	16796665.72	16796665.78	0.1943	0.1614
Venus	41277-05-08 23:46 G	16797303.32	16797303.49	16797303.67	0.1925	0.0049
Venus	41280-02-14 13:55 G	16798314.91	16798315.08	16798315.25	0.1609	0.0214
Mercury	41291-08-20 05:17 G	16802519.59	16802519.72	16802519.85	0.1593	0.1033
Mercury	41296-04-27 13:12 G	16804231.98	16804232.05	16804232.12	0.1941	0.1495
Mercury	41301-01-10 07:12 G	16805949.63	16805949.80	16805949.97	0.1592	0.0304
Mercury	41305-09-18 21:22 G	16807662.27	16807662.39	16807662.50	0.1942	0.0064
Mercury	41315-02-09 05:17 G	16811092.65	16811092.72	16811092.80	0.1943	0.1439
Moon	41316-03-12 11:31 G	16811489.81	16811489.98	16811490.16	0.1609	0.0099
Earth	41316-03-12 13:55 G	16811489.89	16811490.08	16811490.26	0.1610	0.0267 *
Mercury	41331-02-19 05:46 G	16816946.64	16816946.74	16816946.85	0.1593	0.1242
Mercury	41335-10-28 12:58 G	16818658.98	16818659.04	16818659.10	0.1940	0.1646
Mercury	41340-07-11 07:55 G	16820376.66	16820376.83	16820377.00	0.1592	0.0099
Venus	41343-03-07 02:10 G	16821345.43	16821345.59	16821345.75	0.1922	0.0865
Mercury	41345-03-19 21:07 G	16822089.27	16822089.38	16822089.50	0.1942	0.0192
Venus	41345-12-13 02:38 G	16822357.44	16822357.61	16822357.79	0.1610	0.0047
Mercury	41349-12-01 09:36 G	16823806.83	16823806.90	16823806.97	0.1592	0.1436
Mercury	41354-08-10 05:17 G	16825519.64	16825519.72	16825519.81	0.1943	0.1271
Mercury	41370-08-20 06:43 G	16831373.72	16831373.78	16831373.84	0.1593	0.1464
Mercury	41375-04-28 12:58 G	16833086.00	16833086.04	16833086.08	0.1940	0.1809
Mercury	41380-01-10 08:38 G	16834803.69	16834803.86	16834804.03	0.1592	0.0125
Mercury	41384-09-17 21:07 G	16836516.27	16836516.38	16836516.49	0.1942	0.0359

Mercury	41389-06-01 10:19 G	16838233.82	16838233.93	16838234.04	0.1592	0.1229
Mercury	41394-02-08 05:17 G	16839946.63	16839946.72	16839946.81	0.1943	0.1128
Venus	41409-01-02 04:19 G	16845387.62	16845387.68	16845387.74	0.1920	0.1774
Venus	41411-10-11 15:07 G	16846399.96	16846400.13	16846400.30	0.1612	0.0292
Mercury	41419-07-12 09:22 G	16849230.72	16849230.89	16849231.05	0.1592	0.0340
Mercury	41424-03-19 21:07 G	16850943.27	16850943.38	16850943.49	0.1942	0.0509
Mercury	41428-12-01 11:02 G	16852660.83	16852660.96	16852661.09	0.1592	0.1008
Mercury	41433-08-10 05:17 G	16854373.62	16854373.72	16854373.82	0.1943	0.0955
Mercury	41459-01-10 09:50 G	16863657.75	16863657.91	16863658.07	0.1592	0.0549
Mercury	41463-09-18 21:07 G	16865370.27	16865370.38	16865370.49	0.1942	0.0679
Mercury	41468-06-01 11:46 G	16867087.84	16867087.99	16867088.14	0.1592	0.0795
Mercury	41473-02-08 05:17 G	16868800.62	16868800.72	16868800.82	0.1942	0.0780
Venus	41477-08-08 03:36 G	16870442.49	16870442.65	16870442.81	0.1614	0.0546
Mercury	41498-07-11 10:34 G	16878084.79	16878084.94	16878085.09	0.1592	0.0763
Mercury	41503-03-20 21:07 G	16879797.27	16879797.38	16879797.48	0.1941	0.0842
Mercury	41507-12-02 12:29 G	16881514.86	16881515.02	16881515.18	0.1592	0.0584
Venus	41509-08-07 19:26 G	16882129.26	16882129.31	16882129.37	0.1609	0.1514
Mercury	41512-08-10 05:02 G	16883227.60	16883227.71	16883227.82	0.1943	0.0642
Earth	41521-03-13 20:38 G	16886365.20	16886365.36	16886365.52	0.1605	0.0798
Moon	41521-03-14 00:00 G	16886365.32	16886365.50	16886365.69	0.1605	0.0629 *
Mercury	41538-01-10 11:17 G	16892511.84	16892511.97	16892512.11	0.1592	0.0983
Mercury	41542-09-18 21:07 G	16894224.28	16894224.38	16894224.47	0.1941	0.1006
Venus	41543-06-06 16:05 G	16894485.02	16894485.17	16894485.32	0.1615	0.0812
Mercury	41547-06-02 13:12 G	16895941.88	16895942.05	16895942.21	0.1592	0.0365
Mercury	41552-02-09 05:02 G	16897654.60	16897654.71	16897654.82	0.1943	0.0466
Mercury	41561-07-01 13:12 G	16901085.04	16901085.05	16901085.06	0.1943	0.1932
Venus	41572-08-27 10:05 G	16905159.78	16905159.92	16905160.07	0.1922	0.1069
Venus	41575-06-05 08:10 G	16906171.74	16906171.84	16906171.95	0.1610	0.1266
Mercury	41577-07-11 12:00 G	16906938.89	16906939.00	16906939.11	0.1593	0.1192
Mercury	41582-03-19 20:53 G	16908651.28	16908651.37	16908651.46	0.1942	0.1169

Mercury	41586-12-01 13:55 G	16910368.91	16910369.08	16910369.25	0.1592	0.0150
Mercury	41591-08-10 05:02 G	16912081.60	16912081.71	16912081.82	0.1942	0.0299
Mercury	41596-04-22 15:36 G	16913799.10	16913799.15	16913799.21	0.1591	0.1499
Earth	41600-03-15 20:53 G	16915222.24	16915222.37	16915222.51	0.1607	0.1060
Moon	41600-03-16 03:36 G	16915222.50	16915222.65	16915222.80	0.1607	0.0970 *
Mercury	41600-12-30 13:12 G	16915512.01	16915512.05	16915512.10	0.1943	0.1765
Venus	41609-04-03 04:05 G	16918527.54	16918527.67	16918527.80	0.1617	0.1079
Mercury	41617-01-09 12:43 G	16921365.95	16921366.03	16921366.11	0.1593	0.1406
Mercury	41621-09-17 20:53 G	16923078.29	16923078.37	16923078.45	0.1941	0.1334
Mercury	41626-06-01 14:24 G	16924795.93	16924796.10	16924796.27	0.1592	0.0063
Mercury	41631-02-08 05:02 G	16926508.59	16926508.71	16926508.82	0.1942	0.0169
Mercury	41635-10-22 16:19 G	16928226.08	16928226.18	16928226.28	0.1591	0.1286
Venus	41638-06-24 12:43 G	16929201.85	16929202.03	16929202.20	0.1920	0.0183
Mercury	41640-06-30 13:12 G	16929938.99	16929939.05	16929939.12	0.1943	0.1593
Venus	41641-04-01 20:38 G	16930214.22	16930214.36	16930214.49	0.1612	0.1009
Mercury	41661-03-18 20:53 G	16937505.30	16937505.37	16937505.44	0.1941	0.1488
Mercury	41665-11-30 15:22 G	16939222.97	16939223.14	16939223.30	0.1592	0.0283
Mercury	41670-08-09 05:02 G	16940935.59	16940935.71	16940935.82	0.1942	0.0049
Venus	41675-01-29 16:34 G	16942570.09	16942570.19	16942570.28	0.1619	0.1350
Mercury	41675-04-22 17:02 G	16942653.08	16942653.21	16942653.33	0.1591	0.1074
Mercury	41679-12-30 13:12 G	16944365.97	16944366.05	16944366.12	0.1943	0.1441
Mercury	41700-09-17 20:53 G	16951932.31	16951932.37	16951932.43	0.1941	0.1665
Venus	41704-04-21 14:53 G	16953243.96	16953244.12	16953244.28	0.1917	0.0724
Mercury	41705-06-01 15:50 G	16953650.00	16953650.16	16953650.33	0.1592	0.0497
Venus	41707-01-29 09:07 G	16954256.73	16954256.88	16954257.03	0.1614	0.0751
Mercury	41710-02-08 05:02 G	16955362.59	16955362.71	16955362.82	0.1942	0.0200
Mercury	41714-10-22 17:46 G	16957080.10	16957080.24	16957080.38	0.1591	0.0852
Moon	41717-09-14 04:19 G	16958137.50	16958137.68	16958137.86	0.1930	0.0323
Earth	41717-09-14 05:02 G	16958137.50	16958137.71	16958137.91	0.1929	0.0134 *
Mercury	41719-07-01 12:58 G	16958792.96	16958793.04	16958793.13	0.1943	0.1287

Mercury	41740-03-18 20:53 G	16966359.33	16966359.37	16966359.40	0.1941	0.1823
Venus	41740-11-27 04:48 G	16966612.69	16966612.70	16966612.71	0.1621	0.1618
Mercury	41744-11-30 16:34 G	16968077.04	16968077.19	16968077.34	0.1592	0.0707
Mercury	41749-08-09 04:48 G	16969789.59	16969789.70	16969789.81	0.1942	0.0337
Mercury	41754-04-22 18:29 G	16971507.11	16971507.27	16971507.42	0.1592	0.0643
Mercury	41758-12-30 13:12 G	16973219.96	16973220.05	16973220.14	0.1943	0.1100
Venus	41770-02-16 17:31 G	16977286.13	16977286.23	16977286.32	0.1914	0.1588
Venus	41772-11-25 21:50 G	16978299.24	16978299.41	16978299.57	0.1615	0.0502
Mercury	41784-05-31 17:17 G	16982504.08	16982504.22	16982504.36	0.1592	0.0924
Mercury	41789-02-07 04:48 G	16984216.59	16984216.70	16984216.81	0.1942	0.0520
Mercury	41793-10-21 18:58 G	16985934.13	16985934.29	16985934.46	0.1591	0.0431
Mercury	41798-06-30 12:58 G	16987646.94	16987647.04	16987647.14	0.1942	0.0960
Moon	41805-03-16 22:34 G	16990097.25	16990097.44	16990097.63	0.1603	0.0087
Earth	41805-03-17 04:34 G	16990097.50	16990097.69	16990097.88	0.1604	0.0017 *
Mercury	41823-12-01 18:00 G	16996931.14	16996931.25	16996931.37	0.1592	0.1142
Mercury	41828-08-09 04:48 G	16998643.60	16998643.70	16998643.81	0.1942	0.0683
Mercury	41833-04-22 19:55 G	17000361.16	17000361.33	17000361.50	0.1592	0.0205
Mercury	41837-12-30 12:58 G	17002073.94	17002074.04	17002074.15	0.1943	0.0789
Venus	41838-09-24 09:50 G	17002341.74	17002341.91	17002342.09	0.1617	0.0235
Mercury	41842-09-12 21:36 G	17003791.37	17003791.40	17003791.43	0.1591	0.1563
Mercury	41863-06-01 18:43 G	17011358.19	17011358.28	17011358.37	0.1592	0.1350
Mercury	41868-02-08 04:48 G	17013070.59	17013070.70	17013070.80	0.1942	0.0836
Mercury	41872-10-21 20:38 G	17014788.19	17014788.36	17014788.53	0.1592	0.0030
Mercury	41877-06-30 12:58 G	17016500.94	17016501.04	17016501.15	0.1943	0.0616
Mercury	41882-03-13 22:19 G	17018218.34	17018218.43	17018218.52	0.1591	0.1343
Mercury	41902-12-01 19:26 G	17025785.29	17025785.31	17025785.33	0.1592	0.1573
Venus	41904-07-22 22:34 G	17026384.26	17026384.44	17026384.61	0.1619	0.0025
Mercury	41907-08-10 04:48 G	17027497.60	17027497.70	17027497.79	0.1942	0.1010
Mercury	41912-04-22 21:07 G	17029215.21	17029215.38	17029215.55	0.1592	0.0221
Mercury	41916-12-30 12:58 G	17030927.93	17030928.04	17030928.15	0.1942	0.0467

Mercury	41921-09-12 23:02 G	17032645.34	17032645.46	17032645.58	0.1591	0.1134
Mercury	41926-05-22 21:07 G	17034358.37	17034358.38	17034358.39	0.1943	0.1924
Venus	41933-10-12 23:02 G	17037058.33	17037058.46	17037058.60	0.1917	0.1230
Mercury	41947-02-08 04:48 G	17041924.61	17041924.70	17041924.79	0.1942	0.1179
Mercury	41951-10-22 22:05 G	17043642.25	17043642.42	17043642.58	0.1592	0.0444
Mercury	41956-06-30 12:43 G	17045354.92	17045355.03	17045355.15	0.1942	0.0313
Mercury	41961-03-13 23:46 G	17047072.35	17047072.49	17047072.63	0.1591	0.0915
Mercury	41965-11-20 21:07 G	17048785.33	17048785.38	17048785.43	0.1942	0.1748
Venus	41970-05-20 10:48 G	17050426.77	17050426.95	17050427.12	0.1621	0.0294
Mercury	41986-08-09 04:34 G	17056351.61	17056351.69	17056351.77	0.1942	0.1324
Mercury	41991-04-22 22:34 G	17058069.29	17058069.44	17058069.60	0.1592	0.0657
Mercury	41995-12-30 12:58 G	17059781.93	17059782.04	17059782.15	0.1942	0.0117
Venus	41999-08-10 01:26 G	17061100.39	17061100.56	17061100.73	0.1914	0.0335
Mercury	42000-09-12 00:29 G	17061499.37	17061499.52	17061499.67	0.1591	0.0692

43RD MILLENNIUM CE

This is a list of transits visible from Mars in the 43rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	42001-09-15 04:05 G		17061867.57	17061867.67	17061867.77	0.1933	0.1713	
Mercury	42005-05-21 21:07 G		17063212.31	17063212.38	17063212.44	0.1942	0.1598	
Earth	42010-03-17 13:26 G		17064972.91	17064973.06	17064973.20	0.1600	0.0990	
Moon	42010-03-17 19:26 G		17064973.17	17064973.31	17064973.45	0.1600	0.1032	*
Mercury	42026-02-07 04:34 G		17070778.62	17070778.69	17070778.76	0.1942	0.1508	

Mercury	42030-10-21 23:17 G	17072496.33	17072496.47	17072496.61	0.1592	0.0871
Mercury	42035-06-30 12:43 G	17074208.92	17074209.03	17074209.14	0.1942	0.0022
Venus	42036-03-16 22:48 G	17074469.28	17074469.45	17074469.61	0.1623	0.0565
Mercury	42040-03-13 01:12 G	17075926.39	17075926.55	17075926.71	0.1592	0.0482
Mercury	42044-11-19 21:07 G	17077639.30	17077639.38	17077639.45	0.1943	0.1428
Venus	42065-06-06 04:34 G	17085142.52	17085142.69	17085142.85	0.1911	0.0525
Mercury	42065-08-08 04:34 G	17085205.64	17085205.69	17085205.75	0.1941	0.1670
Venus	42068-03-15 15:36 G	17086156.11	17086156.15	17086156.20	0.1617	0.1557
Mercury	42070-04-22 00:14 G	17086923.38	17086923.51	17086923.63	0.1592	0.1094
Mercury	42074-12-29 12:43 G	17088635.92	17088636.03	17088636.15	0.1942	0.0200
Mercury	42079-09-12 01:55 G	17090353.41	17090353.58	17090353.74	0.1591	0.0267
Mercury	42084-05-20 20:53 G	17092066.29	17092066.37	17092066.46	0.1942	0.1267
Earth	42089-03-19 12:58 G	17093829.88	17093830.04	17093830.20	0.1602	0.0825
Moon	42089-03-19 14:24 G	17093829.97	17093830.10	17093830.24	0.1602	0.1047 *
Venus	42102-01-13 11:02 G	17098511.81	17098511.96	17098512.11	0.1624	0.0838
Mercury	42105-02-07 04:34 G	17099632.65	17099632.69	17099632.72	0.1942	0.1825
Mercury	42109-10-22 00:43 G	17101350.44	17101350.53	17101350.63	0.1592	0.1307
Mercury	42114-06-30 12:43 G	17103062.92	17103063.03	17103063.14	0.1942	0.0374
Mercury	42119-03-14 02:38 G	17104780.44	17104780.61	17104780.78	0.1592	0.0043
Mercury	42123-11-20 20:53 G	17106493.28	17106493.37	17106493.47	0.1942	0.1101
Mercury	42128-08-03 04:19 G	17108210.60	17108210.68	17108210.76	0.1591	0.1399
Venus	42131-04-04 06:58 G	17109184.67	17109184.79	17109184.91	0.1908	0.1389
Venus	42134-01-12 04:05 G	17110198.57	17110198.67	17110198.78	0.1619	0.1296
Mercury	42149-04-22 01:26 G	17115777.51	17115777.56	17115777.61	0.1592	0.1519
Mercury	42153-12-29 12:43 G	17117489.92	17117490.03	17117490.14	0.1942	0.0522
Mercury	42158-09-12 03:22 G	17119207.47	17119207.64	17119207.81	0.1592	0.0174
Mercury	42163-05-21 20:53 G	17120920.27	17120920.37	17120920.47	0.1942	0.0938
Venus	42167-11-10 23:17 G	17122554.34	17122554.47	17122554.59	0.1627	0.1114
Mercury	42168-02-02 05:02 G	17122637.60	17122637.71	17122637.82	0.1592	0.1183
Mercury	42193-06-29 12:43 G	17131916.92	17131917.03	17131917.13	0.1942	0.0688

Mercury	42198-03-13 04:05 G	17133634.50	17133634.67	17133634.83	0.1592	0.0391
Venus	42199-11-09 16:48 G	17134241.07	17134241.20	17134241.33	0.1620	0.1042
Mercury	42202-11-20 20:53 G	17135347.27	17135347.37	17135347.47	0.1942	0.0767
Mercury	42207-08-04 05:46 G	17137064.60	17137064.74	17137064.87	0.1592	0.0969
Mercury	42232-12-29 12:43 G	17146343.93	17146344.03	17146344.13	0.1942	0.0873
Venus	42233-09-08 11:17 G	17146596.88	17146596.97	17146597.06	0.1628	0.1392
Mercury	42237-09-12 04:48 G	17148061.54	17148061.70	17148061.86	0.1592	0.0613
Mercury	42242-05-21 20:53 G	17149774.26	17149774.37	17149774.47	0.1942	0.0617
Mercury	42247-02-02 06:29 G	17151491.62	17151491.77	17151491.92	0.1592	0.0748
Venus	42265-09-07 04:48 G	17158283.55	17158283.70	17158283.85	0.1622	0.0771
Mercury	42272-06-29 12:29 G	17160770.92	17160771.02	17160771.12	0.1942	0.1009
Mercury	42277-03-13 05:31 G	17162488.58	17162488.73	17162488.87	0.1592	0.0825
Mercury	42281-11-19 20:53 G	17164201.26	17164201.37	17164201.48	0.1942	0.0438
Mercury	42286-08-03 07:12 G	17165918.64	17165918.80	17165918.96	0.1592	0.0529
Mercury	42291-04-12 05:02 G	17167631.69	17167631.71	17167631.73	0.1941	0.1898
Moon	42294-03-20 21:07 G	17168705.18	17168705.38	17168705.58	0.1599	0.0336
Earth	42294-03-20 22:05 G	17168705.24	17168705.42	17168705.61	0.1599	0.0160 *
Venus	42294-11-27 12:14 G	17168956.90	17168957.01	17168957.13	0.1912	0.1398
Mercury	42311-12-30 12:29 G	17175197.94	17175198.02	17175198.11	0.1942	0.1191
Mercury	42316-09-12 06:00 G	17176915.63	17176915.75	17176915.88	0.1592	0.1042
Mercury	42321-05-21 20:38 G	17178628.25	17178628.36	17178628.48	0.1942	0.0287
Mercury	42326-02-02 07:55 G	17180345.66	17180345.83	17180346.00	0.1592	0.0315
Mercury	42330-10-12 05:02 G	17182058.66	17182058.71	17182058.75	0.1942	0.1746
Venus	42331-07-06 17:17 G	17182326.06	17182326.22	17182326.39	0.1624	0.0514
Mercury	42351-06-30 12:29 G	17189624.94	17189625.02	17189625.10	0.1942	0.1364
Mercury	42356-03-13 06:58 G	17191342.69	17191342.79	17191342.89	0.1592	0.1267
Venus	42360-09-24 15:36 G	17192998.98	17192999.15	17192999.32	0.1909	0.0563
Mercury	42360-11-19 20:38 G	17193055.25	17193055.36	17193055.48	0.1942	0.0136
Moon	42364-09-20 10:05 G	17194455.73	17194455.92	17194456.10	0.1934	0.1100
Earth	42364-09-20 12:14 G	17194455.87	17194456.01	17194456.14	0.1934	0.1424 *

Mercury	42365-08-03 08:38 G	17194772.69	17194772.86	17194773.03	0.1592	0.0093
Mercury	42370-04-12 05:02 G	17196485.64	17196485.71	17196485.77	0.1942	0.1575
Mercury	42374-12-24 10:19 G	17198202.86	17198202.93	17198202.99	0.1592	0.1460
Mercury	42390-12-29 12:29 G	17204051.95	17204052.02	17204052.09	0.1941	0.1512
Mercury	42395-09-12 07:41 G	17205769.76	17205769.82	17205769.88	0.1592	0.1480
Venus	42397-05-03 05:17 G	17206368.54	17206368.72	17206368.89	0.1626	0.0236
Mercury	42400-05-20 20:38 G	17207482.25	17207482.36	17207482.48	0.1942	0.0070
Mercury	42405-02-01 09:22 G	17209199.72	17209199.89	17209200.06	0.1592	0.0127
Mercury	42409-10-11 05:02 G	17210912.63	17210912.71	17210912.79	0.1941	0.1401
Mercury	42414-06-24 11:02 G	17212629.86	17212629.96	17212630.07	0.1592	0.1235
Venus	42426-07-22 18:14 G	17217041.09	17217041.26	17217041.44	0.1905	0.0306
Mercury	42430-06-29 12:29 G	17218478.96	17218479.02	17218479.07	0.1942	0.1682
Mercury	42439-11-19 20:38 G	17221909.25	17221909.36	17221909.47	0.1941	0.0224
Mercury	42444-08-02 10:05 G	17223626.75	17223626.92	17223627.09	0.1592	0.0340
Mercury	42449-04-11 04:48 G	17225339.62	17225339.70	17225339.79	0.1942	0.1259
Mercury	42453-12-23 11:46 G	17227056.86	17227056.99	17227057.12	0.1592	0.1019
Venus	42463-02-28 17:17 G	17230411.05	17230411.22	17230411.40	0.1628	0.0043
Mercury	42469-12-28 12:29 G	17232905.99	17232906.02	17232906.05	0.1941	0.1866
Mercury	42479-05-20 20:38 G	17236336.25	17236336.36	17236336.47	0.1941	0.0378
Mercury	42484-02-01 10:48 G	17238053.79	17238053.95	17238054.11	0.1592	0.0563
Mercury	42488-10-10 05:02 G	17239766.61	17239766.71	17239766.80	0.1941	0.1076
Venus	42492-05-18 21:50 G	17241083.27	17241083.41	17241083.55	0.1902	0.1129
Mercury	42493-06-23 12:29 G	17241483.87	17241484.02	17241484.17	0.1592	0.0804
Moon	42499-03-21 07:26 G	17243580.68	17243580.81	17243580.95	0.1597	0.1001
Earth	42499-03-21 07:41 G	17243580.69	17243580.82	17243580.95	0.1597	0.1141 *
Mercury	42518-11-19 20:38 G	17250763.25	17250763.36	17250763.47	0.1942	0.0559
Mercury	42523-08-03 11:31 G	17252480.83	17252480.98	17252481.13	0.1592	0.0784
Mercury	42528-04-11 04:48 G	17254193.60	17254193.70	17254193.80	0.1941	0.0915
Venus	42528-12-27 05:31 G	17254453.55	17254453.73	17254453.90	0.1630	0.0322
Mercury	42532-12-23 13:12 G	17255910.90	17255911.05	17255911.21	0.1592	0.0578

Mercury	42558-05-20 20:38 G	17265190.25	17265190.36	17265190.46	0.1941	0.0714
Mercury	42563-02-01 12:14 G	17266907.88	17266908.01	17266908.14	0.1592	0.0998
Mercury	42567-10-11 04:48 G	17268620.60	17268620.70	17268620.80	0.1941	0.0758
Mercury	42572-06-23 13:55 G	17270337.91	17270338.08	17270338.25	0.1592	0.0364
Moon	42578-03-24 01:26 G	17272437.39	17272437.56	17272437.74	0.1598	0.0390
Earth	42578-03-24 06:58 G	17272437.62	17272437.79	17272437.96	0.1598	0.0678 *
Venus	42594-10-24 17:31 G	17278496.06	17278496.23	17278496.39	0.1633	0.0604
Mercury	42597-11-18 20:38 G	17279617.26	17279617.36	17279617.46	0.1941	0.0882
Mercury	42602-08-03 12:58 G	17281334.93	17281335.04	17281335.15	0.1592	0.1219
Mercury	42607-04-12 04:48 G	17283047.59	17283047.70	17283047.81	0.1941	0.0586
Mercury	42611-12-24 14:38 G	17284764.94	17284765.11	17284765.28	0.1592	0.0148
Mercury	42621-05-15 16:19 G	17288195.13	17288195.18	17288195.23	0.1593	0.1515
Venus	42626-10-24 11:31 G	17290182.95	17290182.98	17290183.01	0.1626	0.1590
Mercury	42637-05-20 20:38 G	17294044.26	17294044.36	17294044.45	0.1942	0.1053
Mercury	42642-02-01 13:41 G	17295762.00	17295762.07	17295762.14	0.1592	0.1438
Mercury	42646-10-11 04:48 G	17297474.59	17297474.70	17297474.81	0.1941	0.0415
Moon	42648-09-21 00:14 G	17298185.37	17298185.51	17298185.66	0.1937	0.1264
Earth	42648-09-21 05:02 G	17298185.54	17298185.71	17298185.88	0.1937	0.1106 *
Mercury	42651-06-24 15:22 G	17299191.97	17299192.14	17299192.31	0.1592	0.0087
Venus	42656-01-13 02:53 G	17300855.54	17300855.62	17300855.71	0.1906	0.1649
Mercury	42656-03-02 12:58 G	17300905.02	17300905.04	17300905.06	0.1940	0.1886
Venus	42660-08-22 05:17 G	17302538.58	17302538.72	17302538.87	0.1635	0.0889
Mercury	42660-11-13 17:02 G	17302622.11	17302622.21	17302622.31	0.1593	0.1293
Mercury	42676-11-18 20:24 G	17308471.27	17308471.35	17308471.44	0.1941	0.1213
Mercury	42686-04-11 04:34 G	17311901.58	17311901.69	17311901.81	0.1941	0.0276
Mercury	42690-12-23 16:05 G	17313619.01	17313619.17	17313619.34	0.1592	0.0296
Venus	42692-08-20 23:17 G	17314225.37	17314225.47	17314225.57	0.1628	0.1312
Mercury	42695-09-01 12:58 G	17315331.99	17315332.04	17315332.09	0.1940	0.1709
Mercury	42700-05-15 17:46 G	17317049.12	17317049.24	17317049.37	0.1593	0.1072
Mercury	42716-05-20 20:24 G	17322898.27	17322898.35	17322898.43	0.1941	0.1370

Venus	42721-11-10 05:31 G	17324897.57	17324897.73	17324897.89	0.1903	0.0778
Mercury	42725-10-11 04:48 G	17326328.58	17326328.70	17326328.81	0.1941	0.0101
Venus	42726-06-20 17:17 G	17326581.10	17326581.22	17326581.34	0.1637	0.1180
Mercury	42730-06-24 16:48 G	17328046.04	17328046.20	17328046.36	0.1592	0.0508
Mercury	42735-03-03 12:43 G	17329758.97	17329759.03	17329759.10	0.1940	0.1568
Mercury	42739-11-14 18:29 G	17331476.13	17331476.27	17331476.41	0.1593	0.0857
Mercury	42755-11-19 20:24 G	17337325.29	17337325.35	17337325.42	0.1941	0.1557
Venus	42758-06-19 11:46 G	17338267.86	17338267.99	17338268.12	0.1630	0.1048
Mercury	42765-04-11 04:34 G	17340755.58	17340755.69	17340755.81	0.1941	0.0095
Mercury	42769-12-23 17:31 G	17342473.08	17342473.23	17342473.39	0.1592	0.0736
Mercury	42774-09-01 12:58 G	17344185.96	17344186.04	17344186.11	0.1940	0.1398
Mercury	42779-05-15 19:12 G	17345903.14	17345903.30	17345903.45	0.1593	0.0640
Earth	42783-03-25 16:48 G	17347313.02	17347313.20	17347313.39	0.1596	0.0302
Moon	42783-03-25 22:34 G	17347313.25	17347313.44	17347313.63	0.1596	0.0046 *
Venus	42787-09-07 09:22 G	17348939.72	17348939.89	17348940.07	0.1899	0.0026
Venus	42792-04-17 05:02 G	17350623.64	17350623.71	17350623.79	0.1639	0.1473
Mercury	42795-05-20 20:24 G	17351752.29	17351752.35	17351752.40	0.1941	0.1702
Mercury	42804-10-10 04:34 G	17355182.58	17355182.69	17355182.80	0.1941	0.0233
Mercury	42809-06-23 18:14 G	17356900.12	17356900.26	17356900.40	0.1593	0.0949
Mercury	42814-03-02 12:58 G	17358612.95	17358613.04	17358613.12	0.1940	0.1218
Mercury	42818-11-13 19:55 G	17360330.17	17360330.33	17360330.50	0.1593	0.0413
Venus	42824-04-15 23:17 G	17362310.32	17362310.47	17362310.63	0.1632	0.0757
Mercury	42834-11-18 20:24 G	17366179.32	17366179.35	17366179.37	0.1941	0.1872
Mercury	42844-04-10 04:34 G	17369609.58	17369609.69	17369609.80	0.1941	0.0404
Mercury	42848-12-22 18:58 G	17371327.18	17371327.29	17371327.40	0.1592	0.1166
Venus	42853-07-04 12:14 G	17372981.85	17372982.01	17372982.16	0.1895	0.0874
Mercury	42853-08-31 12:43 G	17373039.94	17373040.03	17373040.12	0.1940	0.1075
Mercury	42858-05-14 20:38 G	17374757.19	17374757.36	17374757.53	0.1593	0.0200
Earth	42862-03-27 15:50 G	17376170.11	17376170.16	17376170.22	0.1597	0.1515
Moon	42862-03-27 19:41 G	17376170.24	17376170.32	17376170.41	0.1597	0.1388

Mercury	42867-10-04 22:19 G	17378187.40	17378187.43	17378187.45	0.1593	0.1573
Mercury	42883-10-10 04:34 G	17384036.58	17384036.69	17384036.80	0.1941	0.0572
Mercury	42888-06-22 19:41 G	17385754.24	17385754.32	17385754.40	0.1592	0.1391
Venus	42890-02-11 11:17 G	17386352.81	17386352.97	17386353.14	0.1635	0.0478
Mercury	42893-03-01 12:43 G	17387466.93	17387467.03	17387467.13	0.1940	0.0903
Mercury	42897-11-12 21:22 G	17389184.22	17389184.39	17389184.56	0.1593	0.0019
Mercury	42907-04-05 22:48 G	17392614.37	17392614.45	17392614.54	0.1593	0.1359
Venus	42919-05-02 16:05 G	17397024.09	17397024.17	17397024.25	0.1892	0.1664
Mercury	42923-04-11 04:19 G	17398463.58	17398463.68	17398463.79	0.1941	0.0727
Mercury	42932-08-31 12:43 G	17401893.93	17401894.03	17401894.14	0.1940	0.0727
Mercury	42937-05-14 22:05 G	17403611.25	17403611.42	17403611.59	0.1593	0.0243
Mercury	42946-10-04 23:46 G	17407041.37	17407041.49	17407041.61	0.1593	0.1133
Venus	42955-12-10 23:17 G	17410395.29	17410395.47	17410395.64	0.1637	0.0190
Mercury	42962-10-10 04:34 G	17412890.59	17412890.69	17412890.79	0.1941	0.0905
Mercury	42972-03-01 12:29 G	17416320.92	17416321.02	17416321.13	0.1940	0.0589
Mercury	42976-11-12 22:48 G	17418038.29	17418038.45	17418038.61	0.1593	0.0458
Mercury	42986-04-05 00:29 G	17421468.38	17421468.52	17421468.66	0.1594	0.0915
Moon	42988-03-24 20:10 G	17422188.30	17422188.34	17422188.38	0.1594	0.1549
Earth	42988-03-25 02:24 G	17422188.49	17422188.60	17422188.71	0.1594	0.1281

44TH MILLENNIUM CE

This is a list of transits visible from Mars in the 44th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mercury	43002-04-11 04:19 G	17427317.59	17427317.68	17427317.78	0.1940	0.1059
Mercury	43011-09-01 12:29 G	17430747.91	17430748.02	17430748.14	0.1940	0.0419
Mercury	43016-05-14 23:31 G	17432465.32	17432465.48	17432465.63	0.1593	0.0675
Venus	43017-02-27 17:02 G	17432754.20	17432754.21	17432754.23	0.1900	0.1889
Mercury	43021-01-21 20:53 G	17434178.34	17434178.37	17434178.40	0.1939	0.1866
Venus	43021-10-08 10:48 G	17434437.78	17434437.95	17434438.13	0.1639	0.0110
Mercury	43025-10-05 00:58 G	17435895.39	17435895.54	17435895.70	0.1594	0.0701
Mercury	43041-10-10 04:19 G	17441744.59	17441744.68	17441744.77	0.1941	0.1223
Mercury	43051-03-02 12:43 G	17445174.91	17445175.03	17445175.14	0.1940	0.0239
Mercury	43055-11-14 00:14 G	17446892.37	17446892.51	17446892.65	0.1593	0.0902
Mercury	43060-07-22 20:53 G	17448605.32	17448605.37	17448605.42	0.1939	0.1714
Mercury	43065-04-05 01:55 G	17450322.41	17450322.58	17450322.74	0.1593	0.0479
Moon	43067-03-28 21:07 G	17451045.20	17451045.38	17451045.56	0.1595	0.0659
Earth	43067-03-29 01:55 G	17451045.40	17451045.58	17451045.75	0.1595	0.0532 *
Mercury	43081-04-10 04:19 G	17456171.60	17456171.68	17456171.76	0.1940	0.1392
Venus	43082-12-25 20:38 G	17456796.21	17456796.36	17456796.50	0.1896	0.1054
Venus	43087-08-05 22:48 G	17458480.28	17458480.45	17458480.61	0.1641	0.0401
Mercury	43090-08-31 12:29 G	17459601.90	17459602.02	17459602.13	0.1940	0.0102
Mercury	43095-05-15 00:58 G	17461319.42	17461319.54	17461319.66	0.1593	0.1112
Mercury	43100-01-21 20:53 G	17463032.30	17463032.37	17463032.44	0.1939	0.1536
Mercury	43104-10-05 02:38 G	17464749.44	17464749.61	17464749.77	0.1594	0.0261
Mercury	43120-10-10 04:19 G	17470598.61	17470598.68	17470598.74	0.1940	0.1556
Mercury	43130-03-02 12:29 G	17474028.91	17474029.02	17474029.13	0.1940	0.0081
Mercury	43134-11-14 01:41 G	17475746.48	17475746.57	17475746.66	0.1593	0.1330
Mercury	43139-07-23 20:38 G	17477459.29	17477459.36	17477459.44	0.1938	0.1385
Mercury	43144-04-05 03:07 G	17479176.46	17479176.63	17479176.80	0.1594	0.0055
Venus	43148-10-22 23:31 G	17480838.31	17480838.48	17480838.65	0.1893	0.0211
Venus	43153-06-03 10:19 G	17482522.78	17482522.93	17482523.09	0.1644	0.0700
Mercury	43153-08-26 04:48 G	17482606.63	17482606.70	17482606.78	0.1594	0.1419
Mercury	43160-04-10 04:05 G	17485025.62	17485025.67	17485025.72	0.1941	0.1714

Mercury	43169-08-31 12:29 G	17488455.91	17488456.02	17488456.13	0.1940	0.0254
Mercury	43174-05-15 02:24 G	17490173.57	17490173.60	17490173.63	0.1593	0.1556
Mercury	43179-01-21 20:38 G	17491886.28	17491886.36	17491886.45	0.1938	0.1220
Mercury	43183-10-05 04:05 G	17493603.50	17493603.67	17493603.84	0.1594	0.0184
Venus	43185-06-02 05:31 G	17494209.68	17494209.73	17494209.77	0.1636	0.1570
Mercury	43193-02-24 05:31 G	17497033.62	17497033.73	17497033.84	0.1594	0.1206
Mercury	43199-10-10 04:05 G	17499452.65	17499452.67	17499452.70	0.1940	0.1889
Mercury	43209-03-01 12:14 G	17502882.90	17502883.01	17502883.12	0.1940	0.0399
Venus	43214-08-20 03:36 G	17504880.49	17504880.65	17504880.82	0.1889	0.0569
Mercury	43218-07-22 20:38 G	17506313.27	17506313.36	17506313.46	0.1939	0.1051
Venus	43219-03-31 21:50 G	17506565.27	17506565.41	17506565.55	0.1646	0.1006
Mercury	43223-04-05 04:34 G	17508030.53	17508030.69	17508030.86	0.1594	0.0402
Mercury	43232-08-25 06:14 G	17511460.63	17511460.76	17511460.90	0.1594	0.0978
Mercury	43248-08-30 12:14 G	17517309.91	17517310.01	17517310.12	0.1940	0.0575
Venus	43251-03-30 16:34 G	17518252.08	17518252.19	17518252.30	0.1639	0.1266
Mercury	43258-01-20 20:38 G	17520740.26	17520740.36	17520740.46	0.1938	0.0890
Mercury	43262-10-04 05:17 G	17522457.56	17522457.72	17522457.88	0.1594	0.0613
Mercury	43272-02-24 06:58 G	17525887.64	17525887.79	17525887.94	0.1595	0.0764
Earth	43272-03-28 10:48 G	17525920.77	17525920.95	17525921.13	0.1594	0.0457
Moon	43272-03-28 14:24 G	17525920.94	17525921.10	17525921.27	0.1594	0.0581 *
Venus	43280-06-16 06:43 G	17528922.67	17528922.78	17528922.90	0.1885	0.1393
Venus	43285-01-26 09:22 G	17530607.78	17530607.89	17530607.99	0.1649	0.1323
Mercury	43288-02-29 12:14 G	17531736.91	17531737.01	17531737.12	0.1939	0.0751
Earth	43295-09-27 07:26 G	17534503.60	17534503.81	17534504.01	0.1939	0.0165
Moon	43295-09-27 10:34 G	17534503.72	17534503.94	17534504.16	0.1939	0.0382 *
Mercury	43297-07-21 20:24 G	17535167.25	17535167.35	17535167.46	0.1938	0.0742
Mercury	43302-04-05 06:00 G	17536884.61	17536884.75	17536884.90	0.1594	0.0835
Mercury	43311-08-26 07:41 G	17540314.66	17540314.82	17540314.98	0.1594	0.0546
Venus	43317-01-26 04:34 G	17542294.55	17542294.69	17542294.83	0.1641	0.0980
Mercury	43327-08-31 12:14 G	17546163.91	17546164.01	17546164.11	0.1939	0.0888

Mercury	43337-01-20 20:38 G	17549594.25	17549594.36	17549594.47	0.1939	0.0557
Mercury	43341-10-04 06:43 G	17551311.66	17551311.78	17551311.91	0.1594	0.1058
Venus	43350-11-24 21:07 G	17554650.35	17554650.38	17554650.41	0.1651	0.1625
Mercury	43351-02-24 08:24 G	17554741.68	17554741.85	17554742.02	0.1594	0.0321
Moon	43351-04-01 06:43 G	17554777.73	17554777.78	17554777.84	0.1595	0.1501
Earth	43351-04-01 10:19 G	17554777.84	17554777.93	17554778.03	0.1595	0.1358 *
Mercury	43367-03-01 12:14 G	17560590.91	17560591.01	17560591.10	0.1939	0.1066
Mercury	43376-07-21 20:24 G	17564021.24	17564021.35	17564021.46	0.1938	0.0407
Mercury	43381-04-04 07:26 G	17565738.71	17565738.81	17565738.91	0.1594	0.1271
Venus	43382-11-23 16:05 G	17566337.02	17566337.17	17566337.33	0.1643	0.0681
Mercury	43385-12-12 04:48 G	17567451.67	17567451.70	17567451.73	0.1937	0.1863
Mercury	43390-08-25 09:07 G	17569168.71	17569168.88	17569169.05	0.1595	0.0107
Mercury	43400-01-15 10:34 G	17572598.88	17572598.94	17572599.00	0.1596	0.1489
Mercury	43406-08-31 12:14 G	17575017.92	17575018.01	17575018.09	0.1939	0.1237
Mercury	43416-01-21 20:24 G	17578448.24	17578448.35	17578448.46	0.1938	0.0241
Mercury	43420-10-04 08:10 G	17580165.78	17580165.84	17580165.90	0.1594	0.1492
Mercury	43425-06-13 04:48 G	17581878.64	17581878.70	17581878.75	0.1937	0.1695
Mercury	43430-02-24 09:36 G	17583595.73	17583595.90	17583596.07	0.1595	0.0116
Mercury	43439-07-17 11:17 G	17587025.87	17587025.97	17587026.07	0.1596	0.1275
Venus	43444-02-10 11:17 G	17588694.85	17588694.97	17588695.09	0.1890	0.1324
Mercury	43446-03-01 12:00 G	17589444.92	17589445.00	17589445.08	0.1939	0.1381
Venus	43448-09-21 03:36 G	17590379.48	17590379.65	17590379.82	0.1646	0.0376
Mercury	43455-07-22 20:24 G	17592875.24	17592875.35	17592875.46	0.1938	0.0070
Mercury	43464-12-12 04:48 G	17596305.63	17596305.70	17596305.76	0.1936	0.1528
Mercury	43469-08-25 10:34 G	17598022.77	17598022.94	17598023.11	0.1594	0.0339
Moon	43477-03-29 17:17 G	17600796.11	17600796.22	17600796.33	0.1593	0.1319
Earth	43477-03-29 20:24 G	17600796.28	17600796.35	17600796.42	0.1593	0.1457 *
Mercury	43479-01-15 12:00 G	17601452.87	17601453.00	17601453.13	0.1596	0.1055
Mercury	43485-08-30 12:00 G	17603871.94	17603872.00	17603872.07	0.1939	0.1556
Mercury	43495-01-20 20:24 G	17607302.23	17607302.35	17607302.46	0.1938	0.0116

Mercury	43504-06-13 04:34 G	17610732.61	17610732.69	17610732.77	0.1937	0.1378
Mercury	43509-02-24 11:17 G	17612449.81	17612449.97	17612450.13	0.1595	0.0555
Venus	43509-12-08 14:53 G	17612736.96	17612737.12	17612737.29	0.1886	0.0519
Venus	43514-07-20 15:22 G	17614421.96	17614422.14	17614422.31	0.1648	0.0085
Mercury	43518-07-17 12:43 G	17615879.89	17615880.03	17615880.18	0.1596	0.0828
Mercury	43525-03-01 12:00 G	17618298.95	17618299.00	17618299.05	0.1939	0.1730
Mercury	43534-07-22 20:10 G	17621729.23	17621729.34	17621729.45	0.1938	0.0245
Mercury	43543-12-13 04:34 G	17625159.61	17625159.69	17625159.78	0.1936	0.1199
Mercury	43548-08-25 12:00 G	17626876.85	17626877.00	17626877.14	0.1595	0.0773
Earth	43556-04-01 19:26 G	17629653.13	17629653.31	17629653.50	0.1594	0.0374
Moon	43556-04-01 23:02 G	17629653.27	17629653.46	17629653.66	0.1594	0.0225 *
Mercury	43558-01-15 13:26 G	17630306.90	17630307.06	17630307.21	0.1596	0.0617
Mercury	43564-08-30 11:46 G	17632725.97	17632725.99	17632726.02	0.1939	0.1871
Mercury	43574-01-20 20:24 G	17636156.24	17636156.35	17636156.46	0.1938	0.0435
Venus	43575-10-05 18:29 G	17636779.09	17636779.27	17636779.44	0.1882	0.0292
Venus	43580-05-17 02:38 G	17638464.43	17638464.61	17638464.78	0.1651	0.0244
Mercury	43583-06-13 04:34 G	17639586.59	17639586.69	17639586.78	0.1936	0.1044
Mercury	43588-02-24 12:43 G	17641303.89	17641304.03	17641304.16	0.1595	0.0995
Mercury	43597-07-16 14:10 G	17644733.92	17644734.09	17644734.25	0.1596	0.0398
Mercury	43613-07-21 20:10 G	17650583.23	17650583.34	17650583.44	0.1938	0.0575
Mercury	43622-12-12 04:34 G	17654013.59	17654013.69	17654013.79	0.1937	0.0882
Mercury	43627-08-25 13:12 G	17655730.95	17655731.05	17655731.16	0.1595	0.1214
Mercury	43637-01-14 14:53 G	17659160.95	17659161.12	17659161.29	0.1596	0.0168
Venus	43641-08-01 22:48 G	17660821.31	17660821.45	17660821.60	0.1878	0.1045
Venus	43646-03-14 13:55 G	17662506.92	17662507.08	17662507.24	0.1654	0.0555
Mercury	43646-06-06 16:19 G	17662591.15	17662591.18	17662591.21	0.1597	0.1569
Mercury	43653-01-19 20:10 G	17665010.23	17665010.34	17665010.44	0.1938	0.0743
Mercury	43662-06-12 04:19 G	17668440.58	17668440.68	17668440.79	0.1936	0.0719
Mercury	43667-02-23 13:55 G	17670158.01	17670158.08	17670158.16	0.1595	0.1429
Mercury	43676-07-15 15:36 G	17673587.98	17673588.15	17673588.32	0.1596	0.0053

Mercury	43685-12-05 17:02 G	17677018.12	17677018.21	17677018.30	0.1597	0.1346
Mercury	43692-07-20 20:10 G	17679437.24	17679437.34	17679437.44	0.1938	0.0916
Mercury	43701-12-12 04:19 G	17682867.58	17682867.68	17682867.79	0.1936	0.0553
Venus	43707-05-31 02:24 G	17684863.57	17684863.60	17684863.64	0.1874	0.1834
Venus	43712-01-11 01:12 G	17686549.40	17686549.55	17686549.70	0.1656	0.0875
Mercury	43716-01-15 16:19 G	17688015.01	17688015.18	17688015.34	0.1596	0.0268
Mercury	43725-06-06 17:31 G	17691445.12	17691445.23	17691445.35	0.1597	0.1133
Mercury	43732-01-20 19:55 G	17693864.24	17693864.33	17693864.43	0.1938	0.1069
Mercury	43741-06-12 04:19 G	17697294.57	17697294.68	17697294.79	0.1937	0.0393
Venus	43744-01-09 21:07 G	17698236.30	17698236.38	17698236.46	0.1648	0.1474
Mercury	43750-11-02 12:43 G	17700725.00	17700725.03	17700725.07	0.1934	0.1828
Mercury	43755-07-16 17:02 G	17702442.05	17702442.21	17702442.37	0.1596	0.0493
Moon	43761-04-02 01:41 G	17704528.40	17704528.57	17704528.74	0.1594	0.0509
Earth	43761-04-02 05:17 G	17704528.55	17704528.72	17704528.89	0.1594	0.0632 *
Mercury	43764-12-05 18:29 G	17705872.13	17705872.27	17705872.41	0.1597	0.0905
Mercury	43771-07-21 19:55 G	17708291.24	17708291.33	17708291.42	0.1938	0.1230
Venus	43777-11-07 12:43 G	17710591.91	17710592.03	17710592.15	0.1659	0.1190
Mercury	43780-12-11 04:19 G	17711721.57	17711721.68	17711721.79	0.1936	0.0218
Mercury	43790-05-03 12:29 G	17715151.97	17715152.02	17715152.08	0.1934	0.1692
Mercury	43795-01-14 17:46 G	17716869.08	17716869.24	17716869.39	0.1596	0.0708
Mercury	43804-06-06 19:12 G	17720299.14	17720299.30	17720299.45	0.1597	0.0683
Venus	43805-03-28 02:38 G	17720593.52	17720593.61	17720593.69	0.1883	0.1626
Venus	43809-11-07 08:24 G	17722278.73	17722278.85	17722278.98	0.1651	0.1165
Mercury	43811-01-20 19:55 G	17722718.26	17722718.33	17722718.41	0.1938	0.1417
Mercury	43820-06-12 04:19 G	17726148.56	17726148.68	17726148.79	0.1936	0.0080
Mercury	43829-11-02 12:43 G	17729578.96	17729579.03	17729579.10	0.1934	0.1511
Mercury	43834-07-16 18:14 G	17731296.13	17731296.26	17731296.40	0.1596	0.0930
Moon	43840-04-04 22:34 G	17733385.29	17733385.44	17733385.60	0.1594	0.0923
Earth	43840-04-05 04:34 G	17733385.57	17733385.69	17733385.81	0.1594	0.1214 *
Venus	43843-09-05 23:31 G	17734634.41	17734634.48	17734634.54	0.1662	0.1529

Mercury	43843-12-06 19:55 G	17734726.16	17734726.33	17734726.49	0.1597	0.0465
Mercury	43850-07-21 19:41 G	17737145.26	17737145.32	17737145.39	0.1937	0.1557
Mercury	43859-12-12 04:19 G	17740575.56	17740575.68	17740575.79	0.1936	0.0124
Mercury	43869-05-03 12:43 G	17744005.95	17744006.03	17744006.11	0.1934	0.1343
Venus	43871-01-23 06:43 G	17744635.63	17744635.78	17744635.94	0.1879	0.0841
Mercury	43874-01-14 19:12 G	17745723.18	17745723.30	17745723.42	0.1596	0.1158
Venus	43875-09-04 19:41 G	17746321.17	17746321.32	17746321.47	0.1653	0.0854
Mercury	43883-06-06 20:38 G	17749153.19	17749153.36	17749153.53	0.1597	0.0245
Mercury	43890-01-19 19:55 G	17751572.28	17751572.33	17751572.37	0.1938	0.1731
Mercury	43899-06-12 04:05 G	17755002.56	17755002.67	17755002.79	0.1936	0.0277
Mercury	43908-11-02 12:29 G	17758432.93	17758433.02	17758433.11	0.1934	0.1193
Mercury	43913-07-16 19:55 G	17760150.24	17760150.33	17760150.41	0.1596	0.1372
Mercury	43922-12-06 21:22 G	17763580.22	17763580.39	17763580.56	0.1597	0.0020
Mercury	43929-07-21 19:55 G	17765999.31	17765999.33	17765999.34	0.1938	0.1906
Mercury	43932-04-27 22:48 G	17767010.37	17767010.45	17767010.53	0.1598	0.1418
Venus	43936-11-20 10:48 G	17768677.77	17768677.95	17768678.12	0.1875	0.0072
Mercury	43938-12-12 04:05 G	17769429.56	17769429.67	17769429.78	0.1936	0.0441
Venus	43941-07-03 07:26 G	17770363.64	17770363.81	17770363.97	0.1656	0.0546
Earth	43942-10-04 09:36 G	17770821.72	17770821.90	17770822.09	0.1939	0.0788
Moon	43942-10-04 10:34 G	17770821.77	17770821.94	17770822.12	0.1939	0.0653 *
Mercury	43948-05-03 12:29 G	17772859.92	17772860.02	17772860.11	0.1934	0.1024
Mercury	43953-01-14 20:24 G	17774577.35	17774577.35	17774577.36	0.1596	0.1592
Mercury	43962-06-06 22:05 G	17778007.25	17778007.42	17778007.59	0.1597	0.0201
Mercury	43971-10-27 23:31 G	17781437.37	17781437.48	17781437.59	0.1599	0.1199
Mercury	43978-06-12 04:05 G	17783856.56	17783856.67	17783856.78	0.1936	0.0597
Mercury	43987-11-02 12:29 G	17787286.92	17787287.02	17787287.12	0.1934	0.0846

45TH MILLENNIUM CE

This is a list of transits visible from Mars in the 45th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	44001-12-05 22:48	G	17792434.29	17792434.45	17792434.61	0.1597	0.0426	
Venus	44002-09-17 14:53	G	17792719.96	17792720.12	17792720.28	0.1871	0.0700	
Venus	44007-04-30 18:14	G	17794406.09	17794406.26	17794406.43	0.1659	0.0219	
Mercury	44011-04-28 00:00	G	17795864.37	17795864.50	17795864.64	0.1599	0.0981	
Mercury	44017-12-11 04:05	G	17798283.57	17798283.67	17798283.77	0.1936	0.0770	
Mercury	44027-05-03 12:14	G	17801713.91	17801714.01	17801714.12	0.1934	0.0707	
Mercury	44041-06-05 23:31	G	17806861.32	17806861.48	17806861.64	0.1597	0.0650	
Earth	44045-04-05 14:10	G	17808260.91	17808261.09	17808261.28	0.1594	0.0217	
Moon	44045-04-05 20:24	G	17808261.18	17808261.35	17808261.52	0.1594	0.0516	*
Mercury	44050-10-27 00:58	G	17810291.39	17810291.54	17810291.69	0.1599	0.0751	
Mercury	44057-06-11 04:05	G	17812710.57	17812710.67	17812710.76	0.1936	0.0928	
Mercury	44066-11-01 12:29	G	17816140.91	17816141.02	17816141.13	0.1934	0.0525	
Venus	44068-07-14 19:41	G	17816762.21	17816762.32	17816762.43	0.1867	0.1421	
Venus	44073-02-25 05:46	G	17818448.56	17818448.74	17818448.91	0.1661	0.0104	
Mercury	44080-12-05 00:14	G	17821288.37	17821288.51	17821288.65	0.1597	0.0868	
Mercury	44090-04-27 01:41	G	17824718.41	17824718.57	17824718.73	0.1599	0.0534	
Mercury	44096-12-10 04:05	G	17827137.58	17827137.67	17827137.76	0.1936	0.1103	
Mercury	44106-05-03 12:14	G	17830567.90	17830568.01	17830568.12	0.1934	0.0362	
Mercury	44115-09-23 20:38	G	17833998.33	17833998.36	17833998.40	0.1932	0.1813	
Mercury	44120-06-06 00:58	G	17835715.42	17835715.54	17835715.66	0.1597	0.1090	
Mercury	44129-10-27 02:24	G	17839145.43	17839145.60	17839145.76	0.1599	0.0311	
Mercury	44136-06-11 03:50	G	17841564.58	17841564.66	17841564.75	0.1936	0.1261	

Venus	44138-12-24 16:48 G	17842491.03	17842491.20	17842491.37	0.1664	0.0430
Mercury	44145-11-01 12:14 G	17844994.90	17844995.01	17844995.12	0.1934	0.0206
Mercury	44155-03-24 20:38 G	17848425.31	17848425.36	17848425.42	0.1932	0.1639
Mercury	44159-12-06 01:41 G	17850142.48	17850142.57	17850142.67	0.1597	0.1321
Mercury	44169-04-27 03:07 G	17853572.46	17853572.63	17853572.80	0.1599	0.0083
Mercury	44175-12-11 03:50 G	17855991.59	17855991.66	17855991.74	0.1936	0.1428
Mercury	44178-09-17 04:19 G	17857002.63	17857002.68	17857002.74	0.1600	0.1495
Mercury	44185-05-02 12:14 G	17859421.90	17859422.01	17859422.12	0.1934	0.0036
Mercury	44194-09-22 20:38 G	17862852.29	17862852.36	17862852.43	0.1931	0.1485
Mercury	44199-06-06 02:24 G	17864569.56	17864569.60	17864569.64	0.1597	0.1535
Venus	44204-10-22 04:05 G	17866533.51	17866533.67	17866533.82	0.1667	0.0751
Mercury	44208-10-27 03:50 G	17867999.49	17867999.66	17867999.83	0.1599	0.0139
Mercury	44215-06-12 03:50 G	17870418.60	17870418.66	17870418.72	0.1936	0.1594
Mercury	44218-03-19 05:17 G	17871429.62	17871429.72	17871429.82	0.1600	0.1265
Mercury	44224-11-01 12:14 G	17873848.90	17873849.01	17873849.12	0.1934	0.0144
Earth	44226-10-05 02:10 G	17874551.53	17874551.59	17874551.65	0.1938	0.1847
Moon	44226-10-05 09:36 G	17874551.84	17874551.90	17874551.96	0.1938	0.1861
Venus	44232-03-09 23:17 G	17876534.34	17876534.47	17876534.60	0.1872	0.1214
Mercury	44234-03-24 20:38 G	17877279.28	17877279.36	17877279.44	0.1932	0.1321
Venus	44236-10-21 00:29 G	17878220.52	17878220.52	17878220.53	0.1658	0.1655
Mercury	44248-04-27 04:34 G	17882426.52	17882426.69	17882426.85	0.1599	0.0358
Moon	44250-04-06 18:14 G	17883136.12	17883136.26	17883136.41	0.1594	0.1047
Earth	44250-04-07 00:00 G	17883136.34	17883136.50	17883136.66	0.1594	0.0767 *
Mercury	44254-12-11 03:50 G	17884845.62	17884845.66	17884845.70	0.1935	0.1762
Mercury	44257-09-17 06:00 G	17885856.62	17885856.75	17885856.87	0.1600	0.1048
Mercury	44264-05-02 12:00 G	17888275.89	17888276.00	17888276.12	0.1934	0.0292
Venus	44270-08-19 14:38 G	17890575.98	17890576.11	17890576.24	0.1670	0.1098
Mercury	44273-09-22 20:38 G	17891706.27	17891706.36	17891706.45	0.1932	0.1141
Mercury	44287-10-27 05:17 G	17896853.56	17896853.72	17896853.88	0.1599	0.0588
Mercury	44294-06-11 03:50 G	17899272.65	17899272.66	17899272.67	0.1935	0.1920

Mercury	44297-03-18 06:43 G	17900283.63	17900283.78	17900283.92	0.1600	0.0825
Venus	44298-01-05 03:50 G	17900576.49	17900576.66	17900576.83	0.1868	0.0461
Venus	44302-08-19 11:46 G	17902262.89	17902262.99	17902263.09	0.1661	0.1338
Mercury	44303-11-02 12:14 G	17902702.90	17902703.01	17902703.12	0.1934	0.0475
Mercury	44313-03-24 20:24 G	17906133.26	17906133.35	17906133.45	0.1931	0.0996
Mercury	44327-04-28 06:00 G	17911280.60	17911280.75	17911280.90	0.1599	0.0809
Earth	44329-04-09 23:46 G	17911993.35	17911993.49	17911993.62	0.1594	0.1079
Moon	44329-04-10 00:14 G	17911993.39	17911993.51	17911993.63	0.1594	0.1263 *
Venus	44336-06-17 01:55 G	17914618.49	17914618.58	17914618.67	0.1673	0.1431
Mercury	44336-09-17 07:26 G	17914710.65	17914710.81	17914710.97	0.1600	0.0592
Mercury	44343-05-03 12:00 G	17917129.90	17917130.00	17917130.11	0.1934	0.0637
Mercury	44352-09-22 20:24 G	17920560.25	17920560.35	17920560.45	0.1931	0.0826
Venus	44363-11-03 08:24 G	17924618.67	17924618.85	17924619.02	0.1864	0.0278
Mercury	44366-10-27 06:43 G	17925707.65	17925707.78	17925707.91	0.1599	0.1031
Venus	44368-06-15 23:02 G	17926305.32	17926305.46	17926305.60	0.1664	0.1020
Mercury	44376-03-18 08:10 G	17929137.67	17929137.84	17929138.00	0.1600	0.0379
Mercury	44382-11-01 12:00 G	17931556.90	17931557.00	17931557.10	0.1934	0.0789
Mercury	44392-03-23 20:24 G	17934987.25	17934987.35	17934987.46	0.1931	0.0651
Mercury	44406-04-27 07:26 G	17940134.71	17940134.81	17940134.92	0.1599	0.1257
Mercury	44415-09-17 08:53 G	17943564.70	17943564.87	17943565.04	0.1600	0.0155
Mercury	44422-05-02 12:00 G	17945983.90	17945984.00	17945984.10	0.1934	0.0963
Mercury	44425-02-06 10:05 G	17946994.89	17946994.92	17946994.96	0.1602	0.1568
Venus	44429-08-30 12:58 G	17948660.90	17948661.04	17948661.19	0.1860	0.1008
Mercury	44431-09-22 20:24 G	17949414.24	17949414.35	17949414.46	0.1931	0.0499
Venus	44434-04-13 09:50 G	17950347.75	17950347.91	17950348.06	0.1667	0.0684
Mercury	44445-10-26 08:10 G	17954561.78	17954561.84	17954561.90	0.1599	0.1480
Mercury	44455-03-18 09:36 G	17957991.73	17957991.90	17957992.07	0.1600	0.0087
Moon	44455-04-07 15:07 G	17958012.07	17958012.13	17958012.19	0.1595	0.1495
Mercury	44461-10-31 12:00 G	17960410.91	17960411.00	17960411.09	0.1933	0.1136
Mercury	44464-08-07 10:48 G	17961421.86	17961421.95	17961422.05	0.1602	0.1342

Mercury	44471-03-23 20:24 G	17963841.24	17963841.35	17963841.46	0.1931	0.0332
Mercury	44480-08-13 04:48 G	17967271.66	17967271.70	17967271.74	0.1928	0.1771
Mercury	44494-09-16 10:19 G	17972418.76	17972418.93	17972419.10	0.1600	0.0296
Venus	44495-06-27 18:00 G	17972703.19	17972703.25	17972703.32	0.1855	0.1706
Venus	44500-02-08 20:53 G	17974390.20	17974390.37	17974390.54	0.1670	0.0356
Mercury	44501-05-02 11:46 G	17974837.91	17974837.99	17974838.08	0.1934	0.1284
Mercury	44504-02-07 11:46 G	17975848.87	17975848.99	17975849.11	0.1602	0.1115
Mercury	44510-09-22 20:24 G	17978268.24	17978268.35	17978268.46	0.1931	0.0151
Mercury	44520-02-13 04:48 G	17981698.64	17981698.70	17981698.76	0.1928	0.1608
Mercury	44534-03-18 11:02 G	17986845.80	17986845.96	17986846.12	0.1600	0.0519
Moon	44534-04-10 08:53 G	17986868.69	17986868.87	17986869.04	0.1595	0.0119
Earth	44534-04-10 09:07 G	17986868.69	17986868.88	17986869.06	0.1595	0.0088 *
Mercury	44540-10-31 12:00 G	17989264.93	17989265.00	17989265.07	0.1933	0.1465
Mercury	44543-08-08 12:14 G	17990275.87	17990276.01	17990276.16	0.1602	0.0897
Mercury	44550-03-23 20:10 G	17992695.23	17992695.34	17992695.46	0.1931	0.0033
Mercury	44559-08-14 04:48 G	17996125.62	17996125.70	17996125.77	0.1929	0.1446
Venus	44565-12-07 07:55 G	17998432.65	17998432.83	17998433.00	0.1673	0.0032
Mercury	44573-09-16 12:00 G	18001272.85	18001273.00	18001273.15	0.1600	0.0751
Mercury	44580-05-01 11:46 G	18003691.94	18003691.99	18003692.05	0.1933	0.1626
Mercury	44583-02-06 13:12 G	18004702.89	18004703.05	18004703.20	0.1602	0.0673
Mercury	44589-09-21 20:10 G	18007122.23	18007122.34	18007122.46	0.1931	0.0177
Earth	44589-10-09 14:53 G	18007140.09	18007140.12	18007140.15	0.1937	0.1913
Venus	44593-04-24 16:34 G	18008433.11	18008433.19	18008433.28	0.1864	0.1625
Mercury	44599-02-12 04:34 G	18010552.61	18010552.69	18010552.78	0.1928	0.1275
Mercury	44613-03-18 12:29 G	18015699.89	18015700.02	18015700.16	0.1601	0.0965
Mercury	44619-11-01 11:46 G	18018118.95	18018118.99	18018119.03	0.1934	0.1785
Mercury	44622-08-08 13:55 G	18019129.92	18019130.08	18019130.24	0.1602	0.0440
Mercury	44629-03-23 20:10 G	18021549.23	18021549.34	18021549.46	0.1931	0.0353
Venus	44631-10-05 18:43 G	18022475.11	18022475.28	18022475.45	0.1676	0.0322
Mercury	44638-08-14 04:34 G	18024979.60	18024979.69	18024979.78	0.1928	0.1119

Mercury	44652-09-16 13:12 G	18030126.94	18030127.05	18030127.17	0.1600	0.1192
Venus	44659-02-20 21:22 G	18032475.23	18032475.39	18032475.54	0.1860	0.0886
Mercury	44662-02-06 14:38 G	18033556.94	18033557.11	18033557.28	0.1602	0.0227
Mercury	44668-09-21 20:10 G	18035976.23	18035976.34	18035976.45	0.1931	0.0490
Mercury	44678-02-12 04:34 G	18039406.59	18039406.69	18039406.79	0.1929	0.0946
Mercury	44692-03-17 14:10 G	18044554.01	18044554.09	18044554.16	0.1600	0.1422
Venus	44697-08-02 05:17 G	18046517.56	18046517.72	18046517.88	0.1679	0.0680
Mercury	44701-08-08 15:22 G	18047983.97	18047984.14	18047984.31	0.1602	0.0027
Mercury	44708-03-23 20:10 G	18050403.23	18050403.34	18050403.44	0.1931	0.0660
Mercury	44710-12-29 16:34 G	18051414.11	18051414.19	18051414.26	0.1604	0.1425
Mercury	44717-08-14 04:34 G	18053833.58	18053833.69	18053833.79	0.1928	0.0787
Venus	44724-12-19 02:10 G	18056517.42	18056517.59	18056517.76	0.1856	0.0162
Earth	44739-04-11 18:58 G	18061744.14	18061744.29	18061744.44	0.1596	0.0925
Moon	44739-04-11 19:55 G	18061744.15	18061744.33	18061744.51	0.1596	0.0728 *
Mercury	44741-02-06 16:05 G	18062411.00	18062411.17	18062411.34	0.1602	0.0229
Mercury	44747-09-22 20:10 G	18064830.24	18064830.34	18064830.44	0.1931	0.0838
Mercury	44750-06-29 17:17 G	18065841.11	18065841.22	18065841.33	0.1604	0.1196
Mercury	44757-02-12 04:34 G	18068260.58	18068260.69	18068260.79	0.1928	0.0624
Venus	44763-05-31 16:05 G	18070560.03	18070560.17	18070560.31	0.1682	0.1026
Mercury	44780-08-07 16:48 G	18076838.03	18076838.20	18076838.36	0.1602	0.0449
Mercury	44787-03-23 19:55 G	18079257.23	18079257.33	18079257.43	0.1931	0.0981
Mercury	44789-12-28 18:00 G	18080268.11	18080268.25	18080268.38	0.1605	0.0975
Venus	44790-10-16 07:12 G	18080559.63	18080559.80	18080559.96	0.1852	0.0546
Venus	44795-05-30 13:55 G	18082247.00	18082247.08	18082247.16	0.1672	0.1479
Mercury	44796-08-13 04:19 G	18082687.57	18082687.68	18082687.79	0.1929	0.0461
Mercury	44806-01-03 12:58 G	18086118.02	18086118.04	18086118.06	0.1925	0.1884
Earth	44818-04-13 18:00 G	18090601.10	18090601.25	18090601.40	0.1596	0.0938
Moon	44818-04-14 00:14 G	18090601.35	18090601.51	18090601.67	0.1596	0.0842 *
Mercury	44820-02-06 17:31 G	18091265.07	18091265.23	18091265.38	0.1602	0.0673
Mercury	44826-09-21 19:55 G	18093684.24	18093684.33	18093684.42	0.1931	0.1153

Venus	44829-03-28 01:55 G	18094602.49	18094602.58	18094602.68	0.1685	0.1409
Mercury	44829-06-28 18:43 G	18094695.13	18094695.28	18094695.43	0.1604	0.0753
Mercury	44836-02-12 04:19 G	18097114.57	18097114.68	18097114.79	0.1928	0.0293
Mercury	44845-07-04 12:43 G	18100544.99	18100545.03	18100545.08	0.1925	0.1744
Venus	44856-08-12 12:00 G	18104601.88	18104602.00	18104602.13	0.1848	0.1254
Mercury	44859-08-07 18:14 G	18105692.12	18105692.26	18105692.40	0.1602	0.0904
Venus	44861-03-27 00:29 G	18106289.39	18106289.52	18106289.65	0.1675	0.1128
Mercury	44866-03-22 19:55 G	18108111.25	18108111.33	18108111.41	0.1931	0.1330
Mercury	44868-12-27 19:26 G	18109122.15	18109122.31	18109122.47	0.1604	0.0525
Moon	44873-10-10 04:05 G	18110869.51	18110869.67	18110869.84	0.1935	0.0891
Earth	44873-10-10 07:12 G	18110869.61	18110869.80	18110869.99	0.1935	0.0743 *
Mercury	44875-08-13 04:19 G	18111541.57	18111541.68	18111541.79	0.1928	0.0140
Mercury	44885-01-02 12:58 G	18114971.97	18114972.04	18114972.10	0.1925	0.1562
Mercury	44899-02-05 18:58 G	18120119.17	18120119.29	18120119.41	0.1602	0.1118
Mercury	44905-09-21 19:41 G	18122538.25	18122538.32	18122538.40	0.1931	0.1472
Mercury	44908-06-28 20:10 G	18123549.17	18123549.34	18123549.51	0.1605	0.0306
Mercury	44915-02-12 04:19 G	18125968.57	18125968.68	18125968.79	0.1928	0.0042
Mercury	44924-07-04 12:43 G	18129398.96	18129399.03	18129399.11	0.1925	0.1400
Venus	44927-01-23 11:17 G	18130331.82	18130331.97	18130332.13	0.1678	0.0790
Mercury	44938-08-07 19:26 G	18134546.22	18134546.31	18134546.41	0.1602	0.1343
Mercury	44945-03-22 19:41 G	18136965.27	18136965.32	18136965.38	0.1931	0.1648
Mercury	44947-12-28 20:53 G	18137976.20	18137976.37	18137976.54	0.1605	0.0080
Mercury	44954-08-13 04:05 G	18140395.56	18140395.67	18140395.79	0.1928	0.0212
Mercury	44957-05-19 22:05 G	18141406.36	18141406.42	18141406.47	0.1607	0.1515
Mercury	44964-01-03 12:43 G	18143825.94	18143826.03	18143826.11	0.1925	0.1248
Mercury	44978-02-05 20:24 G	18148973.32	18148973.35	18148973.38	0.1603	0.1573
Mercury	44984-09-20 19:55 G	18151392.29	18151392.33	18151392.36	0.1931	0.1822
Mercury	44987-06-28 21:36 G	18152403.23	18152403.40	18152403.57	0.1604	0.0146
Venus	44992-11-19 21:50 G	18154374.24	18154374.41	18154374.58	0.1681	0.0433
Mercury	44994-02-11 04:05 G	18154822.56	18154822.67	18154822.78	0.1928	0.0365

Mercury 44996-11-17 22:48 G 18155833.35 18155833.45 18155833.55 0.1607 0.1290

46TH MILLENNIUM CE

This is a list of transits visible from Mars in the 46th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	45003-07-05 12:43	G	18158252.93	18158253.03	18158253.12	0.1925	0.1078	
Venus	45020-04-07 14:53	G	18164374.00	18164374.12	18164374.24	0.1853	0.1316	
Moon	45023-04-14 20:53	G	18165476.18	18165476.37	18165476.55	0.1598	0.0019	
Earth	45023-04-15 03:07	G	18165476.45	18165476.63	18165476.82	0.1598	0.0096	*
Mercury	45026-12-28 22:19	G	18166830.26	18166830.43	18166830.60	0.1605	0.0368	
Mercury	45033-08-13 04:05	G	18169249.56	18169249.67	18169249.78	0.1928	0.0529	
Mercury	45036-05-19 23:31	G	18170260.35	18170260.48	18170260.61	0.1607	0.1059	
Mercury	45043-01-03 12:43	G	18172679.93	18172680.03	18172680.13	0.1925	0.0907	
Venus	45058-09-18 08:24	G	18178416.68	18178416.85	18178417.03	0.1684	0.0084	
Mercury	45066-06-28 23:02	G	18181257.30	18181257.46	18181257.62	0.1605	0.0589	
Mercury	45073-02-11 04:05	G	18183676.56	18183676.67	18183676.77	0.1928	0.0690	
Mercury	45075-11-19 00:14	G	18184687.36	18184687.51	18184687.65	0.1607	0.0843	
Mercury	45082-07-04 12:29	G	18187106.92	18187107.02	18187107.12	0.1925	0.0762	
Venus	45086-02-02 20:10	G	18188416.17	18188416.34	18188416.50	0.1849	0.0609	
Moon	45102-04-17 22:34	G	18194333.42	18194333.44	18194333.45	0.1597	0.1588	
Mercury	45105-12-28 23:46	G	18195684.34	18195684.49	18195684.64	0.1604	0.0816	
Mercury	45112-08-13 04:05	G	18198103.56	18198103.67	18198103.77	0.1928	0.0848	
Mercury	45115-05-21 00:58	G	18199114.38	18199114.54	18199114.69	0.1607	0.0621	

Mercury	45122-01-03 12:29 G	18201533.91	18201534.02	18201534.13	0.1925	0.0583
Venus	45124-07-16 18:43 G	18202459.11	18202459.28	18202459.45	0.1688	0.0289
Mercury	45145-06-29 00:29 G	18210111.39	18210111.52	18210111.65	0.1605	0.1039
Venus	45151-12-02 01:12 G	18212458.38	18212458.55	18212458.72	0.1845	0.0089
Mercury	45152-02-12 04:05 G	18212530.57	18212530.67	18212530.76	0.1928	0.1026
Mercury	45154-11-19 01:41 G	18213541.41	18213541.57	18213541.74	0.1607	0.0385
Mercury	45161-07-04 12:29 G	18215960.91	18215961.02	18215961.13	0.1925	0.0424
Mercury	45170-11-24 20:53 G	18219391.35	18219391.37	18219391.40	0.1921	0.1853
Mercury	45184-12-28 01:12 G	18224538.44	18224538.55	18224538.65	0.1605	0.1262
Venus	45190-05-14 05:02 G	18226501.55	18226501.71	18226501.87	0.1691	0.0658
Mercury	45191-08-13 03:50 G	18226957.57	18226957.66	18226957.75	0.1928	0.1173
Mercury	45194-05-20 02:10 G	18227968.42	18227968.59	18227968.76	0.1607	0.0179
Mercury	45201-01-02 12:29 G	18230387.90	18230388.02	18230388.13	0.1925	0.0275
Mercury	45203-10-10 03:22 G	18231398.64	18231398.64	18231398.65	0.1609	0.1607
Mercury	45210-05-25 20:53 G	18233818.32	18233818.37	18233818.42	0.1921	0.1682
Venus	45217-09-28 06:43 G	18236500.62	18236500.78	18236500.94	0.1840	0.0763
Mercury	45224-06-28 01:55 G	18238965.52	18238965.58	18238965.64	0.1605	0.1486
Earth	45228-04-14 11:02 G	18240351.83	18240351.96	18240352.09	0.1600	0.1154
Moon	45228-04-14 17:02 G	18240352.10	18240352.21	18240352.33	0.1600	0.1248
Mercury	45231-02-11 03:50 G	18241384.58	18241384.66	18241384.74	0.1928	0.1340
Mercury	45233-11-18 02:53 G	18242395.45	18242395.62	18242395.80	0.1607	0.0069
Mercury	45240-07-03 12:14 G	18244814.90	18244815.01	18244815.13	0.1925	0.0113
Mercury	45243-04-10 04:05 G	18245825.59	18245825.67	18245825.76	0.1609	0.1388
Mercury	45249-11-23 20:53 G	18248245.30	18248245.37	18248245.43	0.1921	0.1535
Venus	45256-03-10 14:38 G	18250543.98	18250544.11	18250544.25	0.1695	0.1056
Mercury	45270-08-12 03:50 G	18255811.59	18255811.66	18255811.73	0.1928	0.1509
Mercury	45273-05-19 03:50 G	18256822.49	18256822.66	18256822.83	0.1607	0.0284
Mercury	45280-01-02 12:14 G	18259241.90	18259242.01	18259242.13	0.1925	0.0099
Mercury	45282-10-09 04:48 G	18260252.59	18260252.70	18260252.82	0.1609	0.1162
Venus	45283-07-26 12:00 G	18260542.89	18260543.00	18260543.11	0.1836	0.1442

Venus	45288-03-09 13:55 G	18262231.02	18262231.08	18262231.15	0.1684	0.1545
Mercury	45289-05-24 20:38 G	18262672.29	18262672.36	18262672.44	0.1921	0.1371
Earth	45307-04-18 10:48 G	18269208.78	18269208.95	18269209.12	0.1599	0.0730
Moon	45307-04-18 13:12 G	18269208.91	18269209.05	18269209.19	0.1599	0.0944 *
Mercury	45310-02-11 03:50 G	18270238.60	18270238.66	18270238.71	0.1928	0.1668
Mercury	45312-11-18 04:19 G	18271249.52	18271249.68	18271249.85	0.1607	0.0504
Mercury	45319-07-04 12:14 G	18273668.89	18273669.01	18273669.12	0.1925	0.0225
Venus	45322-01-07 00:43 G	18274586.44	18274586.53	18274586.62	0.1698	0.1440
Mercury	45322-04-10 05:31 G	18274679.60	18274679.73	18274679.87	0.1609	0.0935
Mercury	45328-11-23 20:53 G	18277099.28	18277099.37	18277099.45	0.1921	0.1190
Mercury	45349-08-12 03:36 G	18284665.62	18284665.65	18284665.69	0.1928	0.1825
Mercury	45352-05-19 05:02 G	18285676.56	18285676.71	18285676.87	0.1607	0.0724
Venus	45354-01-06 00:43 G	18286273.41	18286273.53	18286273.65	0.1687	0.1194
Mercury	45359-01-02 12:14 G	18288095.90	18288096.01	18288096.12	0.1925	0.0398
Mercury	45361-10-09 06:14 G	18289106.61	18289106.76	18289106.91	0.1609	0.0716
Mercury	45368-05-24 20:38 G	18291526.26	18291526.36	18291526.45	0.1921	0.1054
Venus	45381-05-23 08:38 G	18296272.81	18296272.86	18296272.91	0.1845	0.1747
Mercury	45391-11-18 06:00 G	18300103.61	18300103.75	18300103.89	0.1607	0.0957
Mercury	45398-07-03 12:00 G	18302522.90	18302523.00	18302523.11	0.1924	0.0557
Mercury	45401-04-10 06:58 G	18303533.63	18303533.79	18303533.95	0.1609	0.0493
Mercury	45407-11-24 20:38 G	18305953.26	18305953.36	18305953.46	0.1921	0.0874
Venus	45419-11-04 10:48 G	18310315.80	18310315.95	18310316.10	0.1691	0.0822
Mercury	45431-05-20 06:29 G	18314530.66	18314530.77	18314530.89	0.1607	0.1170
Mercury	45438-01-02 12:00 G	18316949.90	18316950.00	18316950.11	0.1925	0.0717
Mercury	45440-10-09 07:55 G	18317960.66	18317960.83	18317960.99	0.1609	0.0261
Venus	45447-03-21 14:10 G	18320314.95	18320315.09	18320315.23	0.1841	0.1072
Mercury	45447-05-25 20:38 G	18320380.25	18320380.36	18320380.46	0.1921	0.0706
Mercury	45470-11-18 07:12 G	18328957.72	18328957.80	18328957.88	0.1607	0.1398
Mercury	45477-07-03 12:00 G	18331376.90	18331377.00	18331377.10	0.1925	0.0881
Mercury	45480-04-09 08:24 G	18332387.68	18332387.85	18332388.02	0.1609	0.0042

Venus	45485-08-31 21:07 G	18334358.22	18334358.38	18334358.55	0.1694	0.0460
Mercury	45486-11-23 20:24 G	18334807.24	18334807.35	18334807.46	0.1921	0.0560
Mercury	45489-08-30 09:36 G	18335817.83	18335817.90	18335817.96	0.1612	0.1490
Moon	45512-04-18 15:50 G	18344083.97	18344084.16	18344084.35	0.1602	0.0553
Earth	45512-04-18 18:58 G	18344084.11	18344084.29	18344084.48	0.1602	0.0328 *
Venus	45513-01-16 19:55 G	18344357.16	18344357.33	18344357.50	0.1837	0.0396
Mercury	45517-01-02 12:00 G	18345803.90	18345804.00	18345804.09	0.1924	0.1047
Mercury	45519-10-10 09:07 G	18346814.71	18346814.88	18346815.05	0.1609	0.0184
Earth	45520-10-17 11:46 G	18347187.78	18347187.99	18347188.19	0.1931	0.0352
Moon	45520-10-17 14:10 G	18347187.88	18347188.09	18347188.30	0.1931	0.0792 *
Mercury	45526-05-25 20:24 G	18349234.24	18349234.35	18349234.46	0.1921	0.0392
Mercury	45529-03-01 10:05 G	18350244.82	18350244.92	18350245.03	0.1612	0.1269
Mercury	45535-10-16 05:02 G	18352664.67	18352664.71	18352664.74	0.1917	0.1806
Venus	45551-06-30 07:12 G	18358400.62	18358400.80	18358400.97	0.1697	0.0080
Mercury	45556-07-03 11:46 G	18360230.91	18360230.99	18360231.08	0.1925	0.1204
Mercury	45559-04-10 09:50 G	18361241.75	18361241.91	18361242.08	0.1609	0.0416
Mercury	45565-11-23 20:24 G	18363661.24	18363661.35	18363661.47	0.1921	0.0221
Mercury	45568-08-30 11:02 G	18364671.83	18364671.96	18364672.09	0.1612	0.1035
Mercury	45575-04-16 05:02 G	18367091.65	18367091.71	18367091.76	0.1917	0.1650
Venus	45578-11-14 01:26 G	18368399.39	18368399.56	18368399.73	0.1833	0.0269
Earth	45591-04-21 18:29 G	18372941.23	18372941.27	18372941.31	0.1601	0.1560
Mercury	45596-01-02 12:00 G	18374657.92	18374658.00	18374658.07	0.1924	0.1379
Mercury	45598-10-09 10:34 G	18375668.78	18375668.94	18375669.10	0.1609	0.0634
Mercury	45605-05-24 20:10 G	18378088.23	18378088.34	18378088.46	0.1921	0.0105
Mercury	45608-02-29 11:46 G	18379098.84	18379098.99	18379099.13	0.1612	0.0815
Mercury	45614-10-15 05:02 G	18381518.64	18381518.71	18381518.78	0.1918	0.1474
Venus	45617-04-26 17:02 G	18382443.04	18382443.21	18382443.38	0.1701	0.0310
Mercury	45635-07-03 11:46 G	18389084.92	18389084.99	18389085.06	0.1924	0.1531
Mercury	45638-04-09 11:17 G	18390095.83	18390095.97	18390096.11	0.1609	0.0859
Venus	45644-09-10 07:26 G	18392441.66	18392441.81	18392441.96	0.1828	0.0909

Mercury	45644-11-22 20:24 G	18392515.23	18392515.35	18392515.46	0.1921	0.0111
Mercury	45647-08-30 12:29 G	18393525.86	18393526.02	18393526.18	0.1612	0.0589
Mercury	45654-04-15 04:48 G	18395945.62	18395945.70	18395945.78	0.1917	0.1322
Mercury	45675-01-01 11:46 G	18403511.94	18403511.99	18403512.04	0.1925	0.1701
Mercury	45677-10-08 12:00 G	18404522.88	18404523.00	18404523.13	0.1609	0.1095
Venus	45683-02-22 02:38 G	18406485.45	18406485.61	18406485.77	0.1704	0.0718
Mercury	45684-05-23 20:24 G	18406942.23	18406942.35	18406942.46	0.1921	0.0280
Mercury	45687-02-28 13:12 G	18407952.88	18407953.05	18407953.21	0.1612	0.0363
Mercury	45693-10-14 04:48 G	18410372.61	18410372.70	18410372.79	0.1917	0.1158
Venus	45710-07-09 13:12 G	18416483.96	18416484.05	18416484.13	0.1824	0.1562
Mercury	45714-07-03 11:46 G	18417938.96	18417938.99	18417939.01	0.1924	0.1862
Mercury	45717-04-09 12:43 G	18418949.93	18418950.03	18418950.13	0.1609	0.1309
Earth	45717-04-19 02:24 G	18418959.52	18418959.60	18418959.68	0.1605	0.1451
Moon	45717-04-19 04:48 G	18418959.59	18418959.70	18418959.81	0.1605	0.1247 *
Mercury	45723-11-23 20:10 G	18421369.23	18421369.34	18421369.45	0.1921	0.0420
Mercury	45726-08-30 13:55 G	18422379.91	18422380.08	18422380.25	0.1612	0.0140
Mercury	45733-04-15 04:48 G	18424799.60	18424799.70	18424799.80	0.1917	0.0987
Mercury	45736-01-20 14:53 G	18425810.10	18425810.12	18425810.15	0.1615	0.1588
Venus	45748-12-20 12:29 G	18430527.89	18430528.02	18430528.15	0.1708	0.1119
Mercury	45756-10-08 13:26 G	18433377.01	18433377.06	18433377.11	0.1609	0.1535
Mercury	45763-05-24 20:10 G	18435796.23	18435796.34	18435796.45	0.1921	0.0592
Mercury	45766-02-28 14:24 G	18436806.93	18436807.10	18436807.28	0.1612	0.0096
Mercury	45772-10-14 04:48 G	18439226.60	18439226.70	18439226.80	0.1917	0.0831
Mercury	45775-07-21 15:36 G	18440237.06	18440237.15	18440237.23	0.1615	0.1372
Venus	45780-12-19 13:12 G	18442214.99	18442215.05	18442215.11	0.1697	0.1584
Moon	45796-04-20 22:05 G	18447816.25	18447816.42	18447816.60	0.1604	0.0268
Earth	45796-04-21 02:53 G	18447816.44	18447816.62	18447816.80	0.1604	0.0504 *
Mercury	45802-11-23 20:10 G	18450223.24	18450223.34	18450223.45	0.1921	0.0771
Mercury	45805-08-30 15:22 G	18451233.97	18451234.14	18451234.31	0.1612	0.0321
Venus	45808-05-06 08:53 G	18452213.78	18452213.87	18452213.96	0.1833	0.1555

Mercury	45812-04-15 04:34 G	18453653.59	18453653.69	18453653.80	0.1917	0.0673
Venus	45814-10-18 22:05 G	18454570.34	18454570.42	18454570.49	0.1711	0.1533
Mercury	45815-01-20 16:19 G	18454664.06	18454664.18	18454664.30	0.1615	0.1146
Mercury	45842-05-24 19:55 G	18464650.23	18464650.33	18464650.43	0.1921	0.0909
Mercury	45845-02-28 16:05 G	18465661.01	18465661.17	18465661.33	0.1612	0.0545
Venus	45846-10-17 23:02 G	18466257.34	18466257.46	18466257.58	0.1700	0.1200
Mercury	45851-10-15 04:48 G	18468080.59	18468080.70	18468080.81	0.1917	0.0497
Mercury	45854-07-21 17:02 G	18469091.07	18469091.21	18469091.35	0.1615	0.0910
Mercury	45861-03-06 13:12 G	18471511.05	18471511.05	18471511.05	0.1913	0.1912
Venus	45874-03-03 15:07 G	18476255.98	18476256.13	18476256.28	0.1829	0.0917
Mercury	45881-11-22 20:10 G	18479077.24	18479077.34	18479077.43	0.1921	0.1091
Mercury	45884-08-29 16:48 G	18480088.05	18480088.20	18480088.35	0.1612	0.0771
Mercury	45891-04-15 04:34 G	18482507.58	18482507.69	18482507.80	0.1917	0.0343
Mercury	45894-01-19 17:46 G	18483518.08	18483518.24	18483518.39	0.1615	0.0693
Mercury	45900-09-05 12:58 G	18485938.00	18485938.04	18485938.09	0.1913	0.1762
Venus	45912-08-15 09:22 G	18490299.74	18490299.89	18490300.04	0.1703	0.0828
Mercury	45921-05-24 20:10 G	18493504.25	18493504.34	18493504.42	0.1921	0.1257
Mercury	45924-02-29 17:31 G	18494515.09	18494515.23	18494515.36	0.1612	0.0997
Mercury	45930-10-15 04:34 G	18496934.58	18496934.69	18496934.80	0.1917	0.0177
Mercury	45933-07-21 18:29 G	18497945.11	18497945.27	18497945.43	0.1615	0.0463
Venus	45939-12-30 21:07 G	18500298.21	18500298.38	18500298.55	0.1825	0.0273
Mercury	45940-03-06 13:12 G	18500364.99	18500365.05	18500365.11	0.1913	0.1583
Mercury	45960-11-22 19:55 G	18507931.25	18507931.33	18507931.41	0.1921	0.1405
Mercury	45963-08-30 18:14 G	18508942.15	18508942.26	18508942.37	0.1612	0.1228
Mercury	45970-04-15 04:34 G	18511361.58	18511361.69	18511361.80	0.1917	0.0003
Mercury	45973-01-19 19:12 G	18512372.13	18512372.30	18512372.47	0.1615	0.0230
Venus	45978-06-12 18:58 G	18514342.12	18514342.29	18514342.46	0.1707	0.0431
Mercury	45979-09-05 12:58 G	18514791.97	18514792.04	18514792.12	0.1913	0.1426
Mercury	46000-05-23 19:55 G	18522358.27	18522358.33	18522358.39	0.1921	0.1579

47TH MILLENNIUM CE

This is a list of transits visible from Mars in the 47th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	46001-04-22 09:50	G	18522691.74	18522691.91	18522692.09	0.1607	0.0622	
Moon	46001-04-22 14:53	G	18522691.93	18522692.12	18522692.31	0.1607	0.0358	*
Mercury	46003-02-28 18:58	G	18523369.21	18523369.29	18523369.36	0.1612	0.1450	
Venus	46005-10-27 03:22	G	18524340.47	18524340.64	18524340.81	0.1821	0.0353	
Mercury	46009-10-14 04:19	G	18525788.57	18525788.68	18525788.80	0.1917	0.0164	
Mercury	46012-07-20 19:55	G	18526799.16	18526799.33	18526799.50	0.1615	0.0015	
Mercury	46019-03-06 12:58	G	18529218.96	18529219.04	18529219.13	0.1913	0.1265	
Mercury	46021-12-10 20:53	G	18530229.30	18530229.37	18530229.44	0.1618	0.1470	
Mercury	46039-11-22 19:55	G	18536785.29	18536785.33	18536785.38	0.1921	0.1753	
Venus	46044-04-09 04:48	G	18538384.52	18538384.70	18538384.87	0.1711	0.0053	
Mercury	46049-04-14 04:19	G	18540215.57	18540215.68	18540215.79	0.1917	0.0316	
Mercury	46052-01-19 20:38	G	18541226.19	18541226.36	18541226.53	0.1615	0.0219	
Mercury	46058-09-04 12:58	G	18543645.95	18543646.04	18543646.13	0.1913	0.1094	
Mercury	46061-06-10 21:36	G	18544656.29	18544656.40	18544656.50	0.1618	0.1252	
Venus	46071-08-24 09:50	G	18548382.76	18548382.91	18548383.06	0.1816	0.0964	
Mercury	46079-05-23 19:41	G	18551212.31	18551212.32	18551212.34	0.1921	0.1894	
Earth	46080-04-24 10:34	G	18551548.84	18551548.94	18551549.04	0.1606	0.1346	
Moon	46080-04-24 16:19	G	18551549.08	18551549.18	18551549.28	0.1606	0.1343	
Mercury	46088-10-13 04:34	G	18554642.58	18554642.69	18554642.79	0.1917	0.0500	
Mercury	46091-07-20 21:22	G	18555653.23	18555653.39	18555653.56	0.1615	0.0456	

Mercury	46098-03-05 12:58 G	18558072.94	18558073.04	18558073.14	0.1913	0.0929
Mercury	46100-12-10 22:19 G	18559083.30	18559083.43	18559083.56	0.1618	0.1020
Venus	46110-02-05 13:55 G	18562426.91	18562427.08	18562427.25	0.1714	0.0390
Mercury	46128-04-14 04:19 G	18569069.57	18569069.68	18569069.78	0.1917	0.0642
Mercury	46131-01-19 22:05 G	18570080.27	18570080.42	18570080.58	0.1615	0.0676
Venus	46137-06-21 16:05 G	18572425.09	18572425.17	18572425.25	0.1812	0.1584
Mercury	46137-09-04 12:58 G	18572499.93	18572500.04	18572500.14	0.1913	0.0775
Mercury	46140-06-10 23:02 G	18573510.31	18573510.46	18573510.61	0.1618	0.0787
Mercury	46167-10-14 04:19 G	18583496.58	18583496.68	18583496.78	0.1917	0.0811
Earth	46167-10-23 21:07 G	18583506.30	18583506.38	18583506.46	0.1924	0.1764
Moon	46167-10-23 22:05 G	18583506.40	18583506.42	18583506.45	0.1924	0.1900 *
Mercury	46170-07-20 22:48 G	18584507.31	18584507.45	18584507.59	0.1615	0.0904
Venus	46175-12-03 23:31 G	18586469.33	18586469.48	18586469.64	0.1718	0.0802
Mercury	46177-03-05 12:58 G	18586926.93	18586927.04	18586927.14	0.1913	0.0599
Mercury	46179-12-10 23:46 G	18587937.33	18587937.49	18587937.65	0.1618	0.0566
Mercury	46207-04-15 04:19 G	18597923.58	18597923.68	18597923.78	0.1917	0.0987
Mercury	46210-01-19 23:46 G	18598934.37	18598934.49	18598934.61	0.1615	0.1139
Mercury	46216-09-04 12:43 G	18601353.92	18601354.03	18601354.14	0.1913	0.0447
Mercury	46219-06-12 00:29 G	18602364.35	18602364.52	18602364.69	0.1618	0.0339
Mercury	46226-01-25 21:22 G	18604784.37	18604784.39	18604784.42	0.1909	0.1839
Venus	46235-04-19 11:02 G	18608154.85	18608154.96	18608155.06	0.1821	0.1458
Venus	46241-10-01 08:53 G	18610511.75	18610511.87	18610511.99	0.1722	0.1233
Mercury	46246-10-14 04:05 G	18612350.58	18612350.67	18612350.76	0.1917	0.1135
Mercury	46249-07-21 00:14 G	18613361.42	18613361.51	18613361.60	0.1615	0.1358
Mercury	46256-03-05 12:43 G	18615780.92	18615781.03	18615781.15	0.1913	0.0280
Mercury	46258-12-11 01:26 G	18616791.39	18616791.56	18616791.73	0.1618	0.0103
Mercury	46265-07-26 21:22 G	18619211.34	18619211.39	18619211.45	0.1908	0.1671
Mercury	46268-05-02 02:10 G	18620221.56	18620221.59	18620221.62	0.1621	0.1585
Venus	46273-09-30 10:48 G	18622198.89	18622198.95	18622199.02	0.1710	0.1576
Moon	46285-04-25 12:00 G	18626423.81	18626424.00	18626424.19	0.1610	0.0265

Earth	46285-04-25 17:31 G	18626424.04	18626424.23	18626424.41	0.1610	0.0216 *
Mercury	46286-04-14 04:05 G	18626777.59	18626777.67	18626777.75	0.1917	0.1301
Mercury	46289-01-19 00:58 G	18627788.52	18627788.54	18627788.57	0.1615	0.1588
Mercury	46295-09-04 12:43 G	18630207.92	18630208.03	18630208.15	0.1913	0.0113
Mercury	46298-06-11 01:55 G	18631218.41	18631218.58	18631218.75	0.1618	0.0119
Venus	46301-02-14 17:46 G	18632197.09	18632197.24	18632197.39	0.1817	0.0850
Mercury	46305-01-25 21:22 G	18633638.32	18633638.39	18633638.45	0.1908	0.1522
Venus	46307-07-30 18:00 G	18634554.21	18634554.25	18634554.29	0.1725	0.1671
Mercury	46307-11-02 02:53 G	18634648.53	18634648.62	18634648.71	0.1621	0.1356
Mercury	46325-10-14 04:05 G	18641204.61	18641204.67	18641204.75	0.1917	0.1484
Mercury	46335-03-06 12:43 G	18644634.92	18644635.03	18644635.14	0.1913	0.0057
Mercury	46337-12-11 02:38 G	18645645.45	18645645.61	18645645.78	0.1618	0.0350
Venus	46339-07-29 21:07 G	18646241.25	18646241.38	18646241.50	0.1713	0.1189
Mercury	46344-07-26 21:22 G	18648065.31	18648065.39	18648065.47	0.1908	0.1352
Mercury	46347-05-03 03:36 G	18649075.53	18649075.65	18649075.77	0.1621	0.1133
Mercury	46365-04-14 04:05 G	18655631.61	18655631.67	18655631.73	0.1917	0.1625
Venus	46366-12-13 00:14 G	18656239.33	18656239.51	18656239.68	0.1813	0.0243
Mercury	46374-09-04 12:43 G	18659061.92	18659062.03	18659062.14	0.1913	0.0218
Mercury	46377-06-11 03:36 G	18660072.49	18660072.65	18660072.80	0.1618	0.0585
Mercury	46384-01-25 21:22 G	18662492.30	18662492.39	18662492.48	0.1908	0.1174
Mercury	46386-11-01 04:19 G	18663502.54	18663502.68	18663502.82	0.1621	0.0899
Mercury	46404-10-13 04:05 G	18670058.63	18670058.67	18670058.70	0.1917	0.1795
Venus	46405-05-26 06:14 G	18670283.60	18670283.76	18670283.91	0.1717	0.0773
Mercury	46414-03-05 12:43 G	18673488.92	18673489.03	18673489.14	0.1913	0.0388
Mercury	46416-12-10 04:05 G	18674499.53	18674499.67	18674499.82	0.1618	0.0805
Mercury	46423-07-26 21:07 G	18676919.29	18676919.38	18676919.48	0.1908	0.1036
Mercury	46426-05-02 05:02 G	18677929.56	18677929.71	18677929.87	0.1621	0.0671
Venus	46432-10-09 06:58 G	18680281.62	18680281.79	18680281.96	0.1809	0.0355
Earth	46451-10-24 19:12 G	18687236.10	18687236.30	18687236.50	0.1919	0.0465
Moon	46451-10-25 02:24 G	18687236.38	18687236.60	18687236.82	0.1919	0.0083 *

Mercury	46453-09-03 12:29 G	18687915.92	18687916.02	18687916.13	0.1913	0.0546
Mercury	46456-06-10 04:48 G	18688926.57	18688926.70	18688926.83	0.1618	0.1033
Mercury	46463-01-24 21:22 G	18691346.28	18691346.39	18691346.49	0.1908	0.0856
Mercury	46465-10-31 05:46 G	18692356.58	18692356.74	18692356.91	0.1621	0.0443
Venus	46471-03-23 15:36 G	18694325.98	18694326.15	18694326.32	0.1721	0.0359
Earth	46490-04-25 23:46 G	18701299.34	18701299.49	18701299.64	0.1614	0.0949
Moon	46490-04-26 05:17 G	18701299.58	18701299.72	18701299.86	0.1614	0.1017 *
Mercury	46493-03-04 12:43 G	18702342.92	18702343.03	18702343.13	0.1913	0.0718
Mercury	46495-12-10 05:46 G	18703353.64	18703353.74	18703353.84	0.1618	0.1274
Venus	46498-08-06 13:41 G	18704323.92	18704324.07	18704324.22	0.1804	0.0941
Mercury	46502-07-26 21:07 G	18705773.28	18705773.38	18705773.49	0.1908	0.0690
Mercury	46505-05-02 06:29 G	18706783.60	18706783.77	18706783.94	0.1621	0.0216
Mercury	46532-09-03 12:29 G	18716769.92	18716770.02	18716770.12	0.1913	0.0874
Mercury	46535-06-11 06:14 G	18717780.70	18717780.76	18717780.83	0.1618	0.1489
Venus	46537-01-19 00:43 G	18718368.36	18718368.53	18718368.70	0.1725	0.0077
Mercury	46542-01-24 21:07 G	18720200.27	18720200.38	18720200.49	0.1908	0.0540
Mercury	46544-10-31 07:12 G	18721210.63	18721210.80	18721210.97	0.1621	0.0025
Mercury	46554-03-23 08:10 G	18724640.77	18724640.84	18724640.91	0.1625	0.1467
Venus	46564-06-03 20:10 G	18728366.26	18728366.34	18728366.43	0.1800	0.1533
Moon	46569-04-28 23:46 G	18730156.37	18730156.49	18730156.62	0.1612	0.1127
Earth	46569-04-29 00:14 G	18730156.37	18730156.51	18730156.66	0.1612	0.1053 *
Mercury	46572-03-04 12:29 G	18731196.93	18731197.02	18731197.11	0.1913	0.1037
Mercury	46581-07-25 21:07 G	18734627.27	18734627.38	18734627.49	0.1908	0.0370
Mercury	46584-05-01 07:55 G	18735637.66	18735637.83	18735638.00	0.1621	0.0240
Mercury	46590-12-16 05:46 G	18738057.70	18738057.74	18738057.78	0.1903	0.1756
Mercury	46593-09-21 08:53 G	18739067.76	18739067.87	18739067.97	0.1625	0.1247
Venus	46602-11-17 09:50 G	18742410.74	18742410.91	18742411.07	0.1729	0.0513
Mercury	46611-09-04 12:29 G	18745623.93	18745624.02	18745624.11	0.1913	0.1200
Mercury	46621-01-24 21:07 G	18749054.27	18749054.38	18749054.49	0.1908	0.0194
Mercury	46623-11-01 08:38 G	18750064.70	18750064.86	18750065.03	0.1621	0.0475

Mercury	46630-06-17 05:46 G	18752484.68	18752484.74	18752484.80	0.1904	0.1599
Mercury	46633-03-23 09:22 G	18753494.76	18753494.89	18753495.03	0.1625	0.1021
Mercury	46651-03-05 12:29 G	18760050.94	18760051.02	18760051.09	0.1912	0.1368
Mercury	46660-07-25 20:53 G	18763481.26	18763481.37	18763481.48	0.1908	0.0057
Venus	46662-04-01 14:10 G	18764095.99	18764096.09	18764096.20	0.1809	0.1426
Mercury	46663-05-02 09:22 G	18764491.74	18764491.89	18764492.05	0.1621	0.0701
Venus	46668-09-13 18:43 G	18766453.13	18766453.28	18766453.42	0.1732	0.0965
Mercury	46669-12-16 05:46 G	18766911.67	18766911.74	18766911.81	0.1904	0.1419
Mercury	46672-09-21 10:19 G	18767921.78	18767921.93	18767922.08	0.1625	0.0782
Mercury	46690-09-03 12:14 G	18774477.95	18774478.01	18774478.08	0.1912	0.1522
Mercury	46700-01-24 20:53 G	18777908.26	18777908.37	18777908.49	0.1908	0.0138
Mercury	46702-11-01 10:05 G	18778918.78	18778918.92	18778919.06	0.1621	0.0927
Mercury	46709-06-17 05:31 G	18781338.65	18781338.73	18781338.82	0.1903	0.1276
Mercury	46712-03-23 10:48 G	18782348.79	18782348.95	18782349.11	0.1625	0.0567
Venus	46728-01-28 21:22 G	18788138.24	18788138.39	18788138.54	0.1805	0.0843
Mercury	46730-03-05 12:14 G	18788904.96	18788905.01	18788905.06	0.1913	0.1696
Venus	46734-07-13 03:22 G	18790495.55	18790495.64	18790495.74	0.1736	0.1423
Mercury	46739-07-26 20:53 G	18792335.26	18792335.37	18792335.48	0.1908	0.0289
Mercury	46742-05-02 10:48 G	18793345.83	18793345.95	18793346.07	0.1621	0.1153
Mercury	46748-12-16 05:31 G	18795765.64	18795765.73	18795765.82	0.1904	0.1107
Mercury	46751-09-22 11:46 G	18796775.82	18796775.99	18796776.15	0.1625	0.0335
Venus	46766-07-12 07:26 G	18802182.73	18802182.81	18802182.89	0.1724	0.1519
Mercury	46769-09-03 12:14 G	18803331.98	18803332.01	18803332.03	0.1912	0.1848
Earth	46774-04-30 06:00 G	18805031.56	18805031.75	18805031.94	0.1617	0.0145
Moon	46774-04-30 07:55 G	18805031.63	18805031.83	18805032.03	0.1617	0.0239 *
Mercury	46779-01-24 20:53 G	18806762.26	18806762.37	18806762.48	0.1908	0.0443
Mercury	46781-10-31 11:31 G	18807772.90	18807772.98	18807773.07	0.1621	0.1388
Mercury	46788-06-16 05:31 G	18810192.63	18810192.73	18810192.83	0.1904	0.0937
Mercury	46791-03-23 12:29 G	18811202.85	18811203.02	18811203.19	0.1625	0.0099
Venus	46793-11-25 04:05 G	18812180.49	18812180.67	18812180.84	0.1801	0.0258

Mercury	46800-08-12 13:12 G	18814633.02	18814633.05	18814633.07	0.1628	0.1603
Mercury	46818-07-25 20:53 G	18821189.26	18821189.37	18821189.47	0.1908	0.0613
Mercury	46821-05-01 12:14 G	18822200.00	18822200.01	18822200.03	0.1621	0.1610
Mercury	46827-12-16 05:31 G	18824619.62	18824619.73	18824619.83	0.1903	0.0785
Mercury	46830-09-21 12:58 G	18825629.87	18825630.04	18825630.21	0.1625	0.0129
Venus	46832-05-08 16:05 G	18826225.03	18826225.17	18826225.30	0.1728	0.1076
Mercury	46840-02-11 13:55 G	18829059.99	18829060.08	18829060.17	0.1629	0.1369
Mercury	46858-01-23 20:53 G	18835616.26	18835616.37	18835616.47	0.1908	0.0782
Venus	46859-09-22 11:17 G	18836222.80	18836222.97	18836223.14	0.1797	0.0315
Mercury	46867-06-16 05:31 G	18839046.62	18839046.73	18839046.83	0.1903	0.0629
Mercury	46870-03-22 13:41 G	18840056.91	18840057.07	18840057.24	0.1625	0.0349
Mercury	46879-08-12 14:24 G	18843486.99	18843487.10	18843487.22	0.1628	0.1149
Mercury	46897-07-24 20:38 G	18850043.26	18850043.36	18850043.46	0.1908	0.0922
Venus	46898-03-06 01:12 G	18850267.39	18850267.55	18850267.72	0.1732	0.0645
Mercury	46906-12-16 05:31 G	18853473.62	18853473.73	18853473.84	0.1904	0.0445
Mercury	46909-09-21 14:38 G	18854483.95	18854484.11	18854484.27	0.1625	0.0586
Mercury	46916-05-07 14:10 G	18856904.06	18856904.09	18856904.11	0.1898	0.1838
Mercury	46919-02-11 15:07 G	18857914.00	18857914.13	18857914.27	0.1628	0.0921
Venus	46925-07-20 18:14 G	18860265.11	18860265.26	18860265.41	0.1792	0.0880
Mercury	46937-01-23 20:38 G	18864470.27	18864470.36	18864470.45	0.1908	0.1101
Mercury	46946-06-16 05:17 G	18867900.61	18867900.72	18867900.83	0.1903	0.0305
Mercury	46949-03-22 15:07 G	18868910.98	18868911.13	18868911.28	0.1625	0.0805
Mercury	46955-11-06 14:10 G	18871331.04	18871331.09	18871331.14	0.1899	0.1673
Mercury	46958-08-12 16:05 G	18872341.02	18872341.17	18872341.32	0.1628	0.0681
Venus	46964-01-02 09:50 G	18874309.74	18874309.91	18874310.09	0.1735	0.0187
Mercury	46976-07-24 20:38 G	18878897.27	18878897.36	18878897.44	0.1908	0.1259
Moon	46979-04-30 08:53 G	18879906.77	18879906.87	18879906.97	0.1622	0.1316
Earth	46979-04-30 10:19 G	18879906.84	18879906.93	18879907.02	0.1622	0.1416 *
Mercury	46985-12-15 05:17 G	18882327.61	18882327.72	18882327.83	0.1903	0.0135
Mercury	46988-09-20 15:50 G	18883338.03	18883338.16	18883338.29	0.1625	0.1036

Venus	46991-05-18 01:12 G	18884307.45	18884307.55	18884307.65	0.1788	0.1443
Mercury	46995-05-07 13:55 G	18885758.02	18885758.08	18885758.15	0.1898	0.1512
Mercury	46998-02-10 16:34 G	18886768.03	18886768.19	18886768.36	0.1628	0.0468

48TH MILLENNIUM CE

This is a list of transits visible from Mars in the 48th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	47016-01-24 20:24 G		18893324.28	18893324.35	18893324.43	0.1908	0.1417	
Mercury	47025-06-16 05:17 G		18896754.61	18896754.72	18896754.83	0.1903	0.0037	
Mercury	47028-03-22 16:34 G		18897765.09	18897765.19	18897765.30	0.1625	0.1267	
Venus	47029-10-30 18:29 G		18898352.10	18898352.27	18898352.44	0.1739	0.0275	
Mercury	47034-11-06 13:55 G		18900185.00	18900185.08	18900185.16	0.1898	0.1351	
Mercury	47037-08-12 17:17 G		18901195.05	18901195.22	18901195.39	0.1628	0.0238	
Mercury	47055-07-25 20:24 G		18907751.29	18907751.35	18907751.42	0.1908	0.1583	
Moon	47058-05-03 05:31 G		18908763.55	18908763.73	18908763.90	0.1620	0.0506	
Earth	47058-05-03 11:31 G		18908763.81	18908763.98	18908764.16	0.1620	0.0648	*
Mercury	47064-12-15 05:02 G		18911181.60	18911181.71	18911181.83	0.1903	0.0197	
Mercury	47067-09-21 17:17 G		18912192.16	18912192.22	18912192.29	0.1625	0.1490	
Mercury	47074-05-07 13:55 G		18914611.99	18914612.08	18914612.17	0.1899	0.1191	
Mercury	47077-02-10 18:14 G		18915622.09	18915622.26	18915622.43	0.1628	0.0035	
Mercury	47086-07-03 18:43 G		18919052.22	18919052.28	18919052.34	0.1632	0.1518	
Venus	47089-03-14 18:14 G		18920037.16	18920037.26	18920037.36	0.1797	0.1438	
Mercury	47095-01-23 20:24 G		18922178.31	18922178.35	18922178.40	0.1908	0.1748	

Venus	47095-08-28 03:07 G	18922394.47	18922394.63	18922394.79	0.1743	0.0746
Moon	47098-10-31 04:34 G	18923554.52	18923554.69	18923554.85	0.1911	0.0871
Earth	47098-10-31 08:53 G	18923554.71	18923554.87	18923555.02	0.1911	0.1205 *
Mercury	47104-06-16 05:02 G	18925608.60	18925608.71	18925608.83	0.1903	0.0352
Mercury	47113-11-06 13:55 G	18929038.98	18929039.08	18929039.17	0.1898	0.1025
Mercury	47116-08-12 18:43 G	18930049.11	18930049.28	18930049.45	0.1628	0.0220
Mercury	47126-01-02 19:26 G	18933479.21	18933479.31	18933479.41	0.1632	0.1288
Mercury	47134-07-25 20:24 G	18936605.34	18936605.35	18936605.36	0.1908	0.1895
Mercury	47143-12-16 05:17 G	18940035.61	18940035.72	18940035.82	0.1903	0.0531
Mercury	47153-05-07 13:41 G	18943465.97	18943466.07	18943466.17	0.1898	0.0872
Venus	47155-01-11 01:26 G	18944079.41	18944079.56	18944079.71	0.1793	0.0876
Mercury	47156-02-11 19:26 G	18944476.15	18944476.31	18944476.47	0.1628	0.0447
Venus	47161-06-25 11:17 G	18946436.85	18946436.97	18946437.09	0.1747	0.1231
Mercury	47165-07-03 20:10 G	18947906.21	18947906.34	18947906.46	0.1632	0.1066
Mercury	47183-06-16 05:02 G	18954462.60	18954462.71	18954462.81	0.1903	0.0665
Mercury	47192-11-05 13:41 G	18957892.97	18957893.07	18957893.18	0.1899	0.0703
Mercury	47195-08-12 20:10 G	18958903.19	18958903.34	18958903.50	0.1628	0.0688
Mercury	47205-01-01 20:53 G	18962333.22	18962333.37	18962333.51	0.1632	0.0836
Venus	47220-11-07 08:38 G	18968121.69	18968121.86	18968122.03	0.1789	0.0319
Mercury	47222-12-15 05:02 G	18968889.61	18968889.71	18968889.81	0.1903	0.0838
Venus	47227-04-22 19:41 G	18970479.29	18970479.32	18970479.34	0.1751	0.1721
Mercury	47232-05-06 13:41 G	18972319.96	18972320.07	18972320.18	0.1898	0.0546
Mercury	47235-02-10 20:53 G	18973330.23	18973330.37	18973330.51	0.1628	0.0900
Mercury	47244-07-02 21:36 G	18976760.24	18976760.40	18976760.55	0.1632	0.0604
Venus	47259-04-22 00:43 G	18982166.42	18982166.53	18982166.64	0.1739	0.1331
Mercury	47262-06-15 05:02 G	18983316.61	18983316.71	18983316.80	0.1903	0.1005
Earth	47263-05-03 14:24 G	18983638.93	18983639.10	18983639.28	0.1626	0.0664
Moon	47263-05-03 20:53 G	18983639.19	18983639.37	18983639.55	0.1625	0.0431 *
Mercury	47271-11-05 13:41 G	18986746.96	18986747.07	18986747.18	0.1898	0.0386
Mercury	47274-08-11 21:36 G	18987757.28	18987757.40	18987757.52	0.1628	0.1133

Mercury	47281-03-27 22:19 G	18990177.39	18990177.43	18990177.47	0.1893	0.1750
Mercury	47284-01-01 22:19 G	18991187.26	18991187.43	18991187.59	0.1632	0.0380
Venus	47286-09-04 16:19 G	18992164.01	18992164.18	18992164.35	0.1785	0.0229
Mercury	47301-12-15 04:48 G	18997743.61	18997743.70	18997743.79	0.1903	0.1150
Mercury	47311-05-07 13:41 G	19001173.95	19001174.07	19001174.18	0.1899	0.0228
Mercury	47314-02-10 22:19 G	19002184.34	19002184.43	19002184.52	0.1628	0.1371
Mercury	47320-09-26 22:19 G	19004604.37	19004604.43	19004604.49	0.1893	0.1588
Mercury	47323-07-03 22:48 G	19005614.28	19005614.45	19005614.62	0.1632	0.0156
Venus	47325-02-17 09:36 G	19006208.75	19006208.90	19006209.05	0.1742	0.0884
Mercury	47341-06-15 04:48 G	19012170.62	19012170.70	19012170.78	0.1903	0.1317
Earth	47342-05-06 16:19 G	19012496.10	19012496.18	19012496.27	0.1623	0.1429
Moon	47342-05-06 19:26 G	19012496.23	19012496.31	19012496.38	0.1623	0.1468 *
Mercury	47350-11-05 13:26 G	19015600.95	19015601.06	19015601.18	0.1898	0.0084
Venus	47352-07-02 23:31 G	19016206.33	19016206.48	19016206.64	0.1781	0.0775
Mercury	47353-08-11 23:02 G	19016611.42	19016611.46	19016611.49	0.1628	0.1588
Mercury	47360-03-27 22:05 G	19019031.35	19019031.42	19019031.50	0.1893	0.1443
Mercury	47363-01-01 23:46 G	19020041.32	19020041.49	19020041.66	0.1632	0.0094
Mercury	47372-05-24 00:14 G	19023471.43	19023471.51	19023471.59	0.1636	0.1438
Mercury	47380-12-14 04:48 G	19026597.63	19026597.70	19026597.77	0.1903	0.1495
Earth	47382-11-01 10:34 G	19027284.75	19027284.94	19027285.12	0.1904	0.0725
Moon	47382-11-01 19:55 G	19027285.13	19027285.33	19027285.53	0.1904	0.0346
Mercury	47390-05-06 13:26 G	19030027.95	19030028.06	19030028.17	0.1898	0.0096
Venus	47390-12-15 17:46 G	19030251.07	19030251.24	19030251.41	0.1746	0.0406
Mercury	47399-09-26 22:19 G	19033458.34	19033458.43	19033458.51	0.1893	0.1270
Mercury	47402-07-04 00:14 G	19034468.34	19034468.51	19034468.68	0.1632	0.0305
Mercury	47411-11-24 00:58 G	19037898.43	19037898.54	19037898.65	0.1636	0.1214
Venus	47418-05-01 06:58 G	19040248.68	19040248.79	19040248.91	0.1777	0.1305
Mercury	47420-06-15 04:34 G	19041024.64	19041024.69	19041024.75	0.1903	0.1628
Mercury	47429-11-05 13:26 G	19044454.95	19044455.06	19044455.17	0.1899	0.0270
Mercury	47439-03-28 22:19 G	19047885.33	19047885.43	19047885.52	0.1893	0.1105

Mercury	47442-01-02 00:58 G	19048895.38	19048895.54	19048895.70	0.1632	0.0539
Mercury	47451-05-25 01:41 G	19052325.43	19052325.57	19052325.70	0.1636	0.0986
Venus	47456-10-13 02:10 G	19054293.41	19054293.59	19054293.76	0.1750	0.0088
Mercury	47459-12-15 04:34 G	19055451.66	19055451.69	19055451.73	0.1903	0.1807
Mercury	47469-05-06 13:26 G	19058881.95	19058882.06	19058882.17	0.1898	0.0427
Mercury	47478-09-26 22:05 G	19062312.32	19062312.42	19062312.52	0.1893	0.0957
Mercury	47481-07-03 01:41 G	19063322.42	19063322.57	19063322.72	0.1632	0.0772
Mercury	47490-11-23 02:24 G	19066752.45	19066752.60	19066752.75	0.1636	0.0749
Mercury	47508-11-05 13:12 G	19073308.95	19073309.05	19073309.16	0.1898	0.0590
Venus	47516-02-26 23:17 G	19075978.38	19075978.47	19075978.56	0.1785	0.1503
Mercury	47518-03-28 22:05 G	19076739.32	19076739.42	19076739.52	0.1893	0.0782
Mercury	47521-01-02 02:24 G	19077749.47	19077749.60	19077749.73	0.1632	0.0995
Venus	47522-08-11 10:19 G	19078335.77	19078335.93	19078336.10	0.1754	0.0569
Mercury	47530-05-25 02:53 G	19081179.46	19081179.62	19081179.78	0.1636	0.0532
Moon	47547-05-07 15:22 G	19087370.94	19087371.14	19087371.34	0.1629	0.0038
Earth	47547-05-07 19:12 G	19087371.11	19087371.30	19087371.49	0.1629	0.0114 *
Mercury	47548-05-06 13:12 G	19087735.95	19087736.05	19087736.16	0.1898	0.0756
Mercury	47557-09-26 22:05 G	19091166.31	19091166.42	19091166.53	0.1893	0.0622
Mercury	47560-07-03 03:07 G	19092176.52	19092176.63	19092176.74	0.1632	0.1222
Mercury	47569-11-23 03:50 G	19095606.49	19095606.66	19095606.82	0.1636	0.0295
Venus	47581-12-24 06:58 G	19100020.64	19100020.79	19100020.93	0.1781	0.0970
Mercury	47587-11-05 13:12 G	19102162.95	19102163.05	19102163.15	0.1898	0.0908
Venus	47588-06-07 18:14 G	19102378.12	19102378.26	19102378.39	0.1758	0.1076
Mercury	47597-03-27 21:50 G	19105593.30	19105593.41	19105593.53	0.1893	0.0476
Mercury	47600-01-02 03:50 G	19106603.59	19106603.66	19106603.74	0.1632	0.1462
Mercury	47606-08-18 06:43 G	19109023.75	19109023.78	19109023.81	0.1888	0.1811
Mercury	47609-05-24 04:34 G	19110033.52	19110033.69	19110033.86	0.1636	0.0061
Mercury	47618-10-14 05:02 G	19113463.68	19113463.71	19113463.75	0.1641	0.1596
Mercury	47627-05-06 13:12 G	19116589.96	19116590.05	19116590.14	0.1898	0.1065
Mercury	47636-09-25 21:50 G	19120020.30	19120020.41	19120020.53	0.1893	0.0307

Mercury	47646-02-16 06:43 G	19123450.73	19123450.78	19123450.83	0.1887	0.1662
Venus	47647-10-21 14:38 G	19124062.94	19124063.11	19124063.28	0.1777	0.0444
Mercury	47648-11-22 05:02 G	19124460.55	19124460.71	19124460.88	0.1636	0.0169
Venus	47654-04-05 02:10 G	19126420.52	19126420.59	19126420.66	0.1762	0.1586
Mercury	47658-04-14 05:46 G	19127890.65	19127890.74	19127890.84	0.1641	0.1358
Mercury	47666-11-04 13:12 G	19131016.97	19131017.05	19131017.13	0.1898	0.1241
Mercury	47676-03-26 21:50 G	19134447.30	19134447.41	19134447.53	0.1893	0.0152
Mercury	47685-08-17 06:43 G	19137877.71	19137877.78	19137877.84	0.1887	0.1502
Venus	47686-04-04 08:24 G	19138107.78	19138107.85	19138107.93	0.1750	0.1564
Mercury	47688-05-23 05:46 G	19138887.58	19138887.74	19138887.91	0.1636	0.0396
Mercury	47697-10-13 06:29 G	19142317.65	19142317.77	19142317.89	0.1641	0.1138
Mercury	47706-05-06 12:58 G	19145443.97	19145444.04	19145444.12	0.1898	0.1393
Venus	47713-08-18 22:48 G	19148105.27	19148105.45	19148105.62	0.1773	0.0088
Mercury	47715-09-26 21:50 G	19148874.29	19148874.41	19148874.52	0.1893	0.0026
Mercury	47725-02-16 06:43 G	19152304.70	19152304.78	19152304.86	0.1888	0.1321
Mercury	47727-11-23 06:43 G	19153314.62	19153314.78	19153314.93	0.1636	0.0631
Mercury	47737-04-14 07:12 G	19156744.66	19156744.80	19156744.94	0.1641	0.0907
Mercury	47745-11-04 12:58 G	19159870.98	19159871.04	19159871.11	0.1898	0.1555
Venus	47752-01-31 17:17 G	19162150.08	19162150.22	19162150.35	0.1753	0.1101
Earth	47752-05-06 21:22 G	19162246.27	19162246.39	19162246.51	0.1636	0.1268
Moon	47752-05-06 23:46 G	19162246.38	19162246.49	19162246.60	0.1636	0.1284 *
Mercury	47755-03-27 21:50 G	19163301.30	19163301.41	19163301.52	0.1893	0.0190
Mercury	47764-08-17 06:29 G	19166731.68	19166731.77	19166731.86	0.1887	0.1182
Mercury	47767-05-24 07:12 G	19167741.66	19167741.80	19167741.95	0.1636	0.0854
Mercury	47776-10-13 07:55 G	19171171.68	19171171.83	19171171.99	0.1640	0.0662
Venus	47779-06-16 06:29 G	19172147.61	19172147.77	19172147.93	0.1769	0.0592
Mercury	47785-05-05 12:58 G	19174298.00	19174298.04	19174298.09	0.1898	0.1725
Mercury	47794-09-25 21:50 G	19177728.30	19177728.41	19177728.52	0.1893	0.0350
Mercury	47804-02-17 06:29 G	19181158.68	19181158.77	19181158.87	0.1887	0.1008
Mercury	47806-11-23 08:10 G	19182168.71	19182168.84	19182168.96	0.1636	0.1092

Mercury	47816-04-14 08:38 G	19185598.69	19185598.86	19185599.02	0.1641	0.0449
Venus	47817-11-29 00:58 G	19186192.38	19186192.54	19186192.70	0.1757	0.0600
Mercury	47824-11-04 12:58 G	19188725.03	19188725.04	19188725.05	0.1898	0.1877
Moon	47831-05-10 19:12 G	19191103.14	19191103.30	19191103.46	0.1633	0.0794
Earth	47831-05-10 23:46 G	19191103.33	19191103.49	19191103.64	0.1633	0.0895 *
Mercury	47834-03-27 21:36 G	19192155.30	19192155.40	19192155.51	0.1893	0.0513
Mercury	47843-08-18 06:29 G	19195585.67	19195585.77	19195585.87	0.1887	0.0841
Venus	47845-04-13 14:24 G	19196189.97	19196190.10	19196190.24	0.1765	0.1095
Mercury	47846-05-24 08:53 G	19196595.77	19196595.87	19196595.96	0.1636	0.1322
Mercury	47855-10-14 09:22 G	19200025.72	19200025.89	19200026.06	0.1640	0.0214
Mercury	47873-09-25 21:36 G	19206582.30	19206582.40	19206582.51	0.1893	0.0678
Mercury	47883-02-16 06:29 G	19210012.66	19210012.77	19210012.87	0.1887	0.0693
Venus	47883-09-26 08:53 G	19210234.70	19210234.87	19210235.05	0.1762	0.0112
Mercury	47885-11-22 09:22 G	19211022.84	19211022.89	19211022.95	0.1636	0.1550
Mercury	47895-04-14 10:05 G	19214452.75	19214452.92	19214453.09	0.1640	0.0036
Mercury	47904-09-04 10:34 G	19217882.88	19217882.94	19217883.00	0.1645	0.1519
Venus	47911-02-09 23:17 G	19220232.39	19220232.47	19220232.54	0.1761	0.1562
Mercury	47913-03-27 21:36 G	19221009.30	19221009.40	19221009.50	0.1893	0.0839
Mercury	47922-08-18 06:29 G	19224439.66	19224439.77	19224439.88	0.1887	0.0528
Mercury	47932-01-08 15:22 G	19227870.12	19227870.14	19227870.15	0.1882	0.1856
Mercury	47934-10-14 10:48 G	19228879.78	19228879.95	19228880.11	0.1640	0.0253
Venus	47943-02-09 05:46 G	19231919.68	19231919.74	19231919.80	0.1774	0.1650
Mercury	47944-03-05 11:17 G	19232309.87	19232309.97	19232310.07	0.1645	0.1288
Venus	47949-07-24 17:02 G	19234277.04	19234277.21	19234277.38	0.1765	0.0408
Mercury	47952-09-25 21:36 G	19235436.30	19235436.40	19235436.50	0.1893	0.0990
Mercury	47962-02-16 06:29 G	19238866.66	19238866.77	19238866.88	0.1887	0.0347
Mercury	47971-07-09 15:22 G	19242297.09	19242297.14	19242297.18	0.1882	0.1703
Mercury	47974-04-14 11:31 G	19243306.81	19243306.98	19243307.14	0.1640	0.0484
Mercury	47983-09-04 12:00 G	19246736.87	19246737.00	19246737.13	0.1645	0.1056
Mercury	47992-03-26 21:36 G	19249863.31	19249863.40	19249863.49	0.1893	0.1164

49TH MILLENNIUM CE

This is a list of transits visible from Mars in the 49th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	48001-08-17 06:14	G	19253293.65	19253293.76	19253293.87	0.1887	0.0210	
Venus	48008-12-06 13:55	G	19255961.95	19255962.08	19255962.21	0.1770	0.1143	
Mercury	48011-01-07 15:22	G	19256724.07	19256724.14	19256724.20	0.1882	0.1529	
Mercury	48013-10-13 12:14	G	19257733.86	19257734.01	19257734.17	0.1640	0.0729	
Venus	48015-05-22 00:14	G	19258319.37	19258319.51	19258319.66	0.1770	0.0940	
Mercury	48023-03-05 12:43	G	19261163.88	19261164.03	19261164.17	0.1645	0.0830	
Moon	48029-11-07 23:02	G	19263603.28	19263603.46	19263603.64	0.1893	0.0739	
Earth	48029-11-08 07:41	G	19263603.69	19263603.82	19263603.95	0.1893	0.1409	
Mercury	48031-09-25 21:36	G	19264290.32	19264290.40	19264290.48	0.1893	0.1322	
Earth	48036-05-10 00:58	G	19265978.36	19265978.54	19265978.72	0.1640	0.0520	
Moon	48036-05-10 05:02	G	19265978.52	19265978.71	19265978.90	0.1640	0.0420	*
Mercury	48041-02-15 06:29	G	19267720.65	19267720.77	19267720.88	0.1887	0.0083	
Mercury	48050-07-08 15:07	G	19271151.06	19271151.13	19271151.21	0.1881	0.1377	
Mercury	48053-04-13 12:43	G	19272160.90	19272161.03	19272161.17	0.1640	0.0943	
Mercury	48062-09-03 13:26	G	19275590.90	19275591.06	19275591.22	0.1645	0.0587	
Mercury	48071-03-26 21:36	G	19278717.33	19278717.40	19278717.47	0.1893	0.1484	
Venus	48074-10-03 22:19	G	19280004.27	19280004.43	19280004.59	0.1766	0.0643	
Mercury	48080-08-16 06:14	G	19282147.65	19282147.76	19282147.88	0.1887	0.0146	
Venus	48081-03-18 07:55	G	19282361.74	19282361.83	19282361.93	0.1774	0.1475	

Mercury	48090-01-06 15:07 G	19285578.05	19285578.13	19285578.22	0.1882	0.1212
Mercury	48092-10-12 13:41 G	19286587.95	19286588.07	19286588.18	0.1640	0.1181
Mercury	48102-03-05 14:10 G	19290017.92	19290018.09	19290018.25	0.1645	0.0363
Mercury	48110-09-25 21:22 G	19293144.34	19293144.39	19293144.45	0.1893	0.1647
Mercury	48120-02-16 06:14 G	19296574.65	19296574.76	19296574.87	0.1887	0.0283
Mercury	48129-07-08 15:07 G	19300005.04	19300005.13	19300005.23	0.1882	0.1046
Mercury	48132-04-13 14:24 G	19301015.02	19301015.10	19301015.18	0.1640	0.1423
Venus	48140-08-01 06:43 G	19304046.60	19304046.78	19304046.95	0.1762	0.0150
Mercury	48141-09-03 14:53 G	19304444.95	19304445.12	19304445.29	0.1645	0.0129
Mercury	48150-03-26 21:22 G	19307571.36	19307571.39	19307571.42	0.1893	0.1809
Mercury	48159-08-17 06:14 G	19311001.65	19311001.76	19311001.87	0.1887	0.0450
Mercury	48169-01-06 15:07 G	19314432.03	19314432.13	19314432.23	0.1882	0.0884
Venus	48179-01-14 00:00 G	19318091.39	19318091.50	19318091.62	0.1765	0.1296
Mercury	48181-03-04 15:36 G	19318871.98	19318872.15	19318872.32	0.1645	0.0106
Mercury	48190-07-25 16:05 G	19322302.09	19322302.17	19322302.25	0.1649	0.1449
Mercury	48199-02-15 06:14 G	19325428.65	19325428.76	19325428.87	0.1887	0.0627
Venus	48206-05-30 14:53 G	19328088.95	19328089.12	19328089.29	0.1758	0.0342
Mercury	48208-07-08 15:07 G	19328859.02	19328859.13	19328859.23	0.1882	0.0731
Mercury	48220-09-03 16:19 G	19333299.01	19333299.18	19333299.34	0.1645	0.0336
Mercury	48230-01-24 16:34 G	19336729.08	19336729.19	19336729.31	0.1650	0.1225
Mercury	48238-08-17 06:00 G	19339855.65	19339855.75	19339855.86	0.1887	0.0766
Venus	48244-11-11 07:26 G	19342133.65	19342133.81	19342133.96	0.1769	0.0771
Mercury	48248-01-07 15:07 G	19343286.02	19343286.13	19343286.24	0.1882	0.0554
Mercury	48260-03-04 17:02 G	19347726.05	19347726.21	19347726.37	0.1645	0.0566
Mercury	48269-07-25 17:17 G	19351156.09	19351156.22	19351156.36	0.1650	0.0990
Venus	48272-03-26 23:17 G	19352131.32	19352131.47	19352131.63	0.1754	0.0819
Mercury	48278-02-15 06:14 G	19354282.66	19354282.76	19354282.85	0.1887	0.0943
Mercury	48287-07-08 14:53 G	19357713.01	19357713.12	19357713.24	0.1881	0.0411
Mercury	48296-11-27 23:46 G	19361143.45	19361143.49	19361143.54	0.1876	0.1733
Mercury	48299-09-03 17:46 G	19362153.10	19362153.24	19362153.39	0.1645	0.0811

Mercury	48309-01-24 18:14 G	19365583.11	19365583.26	19365583.41	0.1649	0.0754
Venus	48310-09-09 15:07 G	19366175.96	19366176.13	19366176.31	0.1773	0.0257
Earth	48313-11-10 15:36 G	19367333.95	19367334.15	19367334.35	0.1886	0.0092
Moon	48313-11-10 23:17 G	19367334.28	19367334.47	19367334.66	0.1886	0.0036 *
Mercury	48317-08-17 06:14 G	19368709.66	19368709.76	19368709.85	0.1887	0.1107
Moon	48320-05-13 21:50 G	19369710.22	19369710.41	19369710.60	0.1645	0.0184
Earth	48320-05-14 04:19 G	19369710.49	19369710.68	19369710.87	0.1644	0.0225 *
Mercury	48327-01-07 14:53 G	19372140.01	19372140.12	19372140.24	0.1882	0.0249
Mercury	48336-05-29 23:46 G	19375570.43	19375570.49	19375570.55	0.1876	0.1567
Venus	48338-01-23 08:24 G	19376173.73	19376173.85	19376173.96	0.1750	0.1269
Mercury	48339-03-05 18:29 G	19376580.13	19376580.27	19376580.40	0.1645	0.1030
Mercury	48348-07-25 18:43 G	19380010.12	19380010.28	19380010.44	0.1650	0.0529
Mercury	48357-02-15 06:00 G	19383136.67	19383136.75	19383136.83	0.1887	0.1254
Mercury	48366-07-08 14:53 G	19386567.01	19386567.12	19386567.24	0.1882	0.0102
Mercury	48375-11-28 23:46 G	19389997.42	19389997.49	19389997.57	0.1876	0.1402
Venus	48376-07-06 22:34 G	19390218.27	19390218.44	19390218.61	0.1777	0.0285
Mercury	48378-09-03 19:12 G	19391007.19	19391007.30	19391007.40	0.1645	0.1264
Mercury	48388-01-24 19:26 G	19394437.15	19394437.31	19394437.48	0.1649	0.0294
Mercury	48396-08-16 06:00 G	19397563.68	19397563.75	19397563.82	0.1887	0.1422
Venus	48403-11-20 16:48 G	19400216.18	19400216.20	19400216.22	0.1746	0.1733
Mercury	48406-01-06 14:53 G	19400994.01	19400994.12	19400994.23	0.1881	0.0082
Mercury	48415-05-29 23:46 G	19404424.41	19404424.49	19404424.57	0.1876	0.1251
Mercury	48418-03-04 19:55 G	19405434.26	19405434.33	19405434.40	0.1645	0.1502
Mercury	48427-07-25 20:10 G	19408864.18	19408864.34	19408864.51	0.1649	0.0071
Venus	48435-11-19 22:19 G	19411903.32	19411903.43	19411903.53	0.1759	0.1374
Mercury	48436-02-15 06:00 G	19411990.69	19411990.75	19411990.81	0.1887	0.1593
Mercury	48436-12-14 20:38 G	19412294.33	19412294.36	19412294.38	0.1654	0.1629
Venus	48442-05-04 05:31 G	19414260.57	19414260.73	19414260.88	0.1781	0.0848
Mercury	48445-07-07 14:53 G	19415421.00	19415421.12	19415421.23	0.1882	0.0242
Mercury	48454-11-27 23:46 G	19418851.40	19418851.49	19418851.58	0.1876	0.1077

Mercury	48467-01-23 20:53 G	19423291.20	19423291.37	19423291.54	0.1650	0.0169
Mercury	48475-08-16 05:46 G	19426417.70	19426417.74	19426417.79	0.1887	0.1732
Mercury	48476-06-14 21:22 G	19426721.30	19426721.39	19426721.48	0.1654	0.1389
Mercury	48485-01-05 14:53 G	19429848.01	19429848.12	19429848.23	0.1882	0.0416
Mercury	48494-05-28 23:46 G	19433278.39	19433278.49	19433278.59	0.1876	0.0923
Venus	48501-09-17 06:58 G	19435945.64	19435945.79	19435945.93	0.1755	0.0894
Mercury	48506-07-25 21:36 G	19437718.24	19437718.40	19437718.56	0.1649	0.0402
Venus	48508-03-01 12:43 G	19438302.93	19438303.03	19438303.14	0.1785	0.1404
Mercury	48515-12-15 21:50 G	19441148.30	19441148.41	19441148.53	0.1654	0.1170
Mercury	48524-07-07 14:38 G	19444275.00	19444275.11	19444275.22	0.1881	0.0561
Earth	48525-05-14 02:38 G	19444585.50	19444585.61	19444585.72	0.1652	0.1328
Moon	48525-05-14 09:07 G	19444585.77	19444585.88	19444586.00	0.1652	0.1292
Mercury	48533-11-27 23:46 G	19447705.38	19447705.49	19447705.59	0.1876	0.0765
Mercury	48546-01-23 22:19 G	19452145.28	19452145.43	19452145.59	0.1649	0.0636
Mercury	48555-06-15 22:34 G	19455575.30	19455575.44	19455575.58	0.1654	0.0937
Mercury	48564-01-06 14:38 G	19458702.01	19458702.11	19458702.22	0.1882	0.0730
Venus	48567-07-15 15:22 G	19459987.97	19459988.14	19459988.31	0.1751	0.0410
Mercury	48573-05-28 23:31 G	19462132.38	19462132.48	19462132.59	0.1876	0.0603
Mercury	48585-07-24 23:02 G	19466572.31	19466572.46	19466572.60	0.1650	0.0865
Mercury	48594-12-14 23:31 G	19470002.33	19470002.48	19470002.63	0.1654	0.0689
Moon	48597-11-10 21:36 G	19471064.28	19471064.40	19471064.54	0.1877	0.1496
Earth	48597-11-11 01:41 G	19471064.44	19471064.57	19471064.70	0.1877	0.1418 *
Mercury	48603-07-08 14:38 G	19473129.01	19473129.11	19473129.21	0.1882	0.0893
Earth	48604-05-17 06:14 G	19473442.61	19473442.76	19473442.92	0.1649	0.0951
Moon	48604-05-17 06:43 G	19473442.65	19473442.78	19473442.91	0.1649	0.1087 *
Venus	48605-12-28 05:31 G	19474032.63	19474032.73	19474032.83	0.1776	0.1440
Mercury	48612-11-27 23:31 G	19476559.37	19476559.48	19476559.59	0.1876	0.0442
Mercury	48622-04-20 08:24 G	19479989.82	19479989.85	19479989.89	0.1870	0.1758
Mercury	48625-01-23 23:46 G	19480999.36	19480999.49	19480999.61	0.1649	0.1099
Venus	48633-05-13 00:00 G	19484030.32	19484030.50	19484030.67	0.1747	0.0061

Mercury	48634-06-16 00:00 G	19484429.34	19484429.50	19484429.66	0.1654	0.0477
Mercury	48643-01-06 14:38 G	19487556.01	19487556.11	19487556.20	0.1881	0.1043
Mercury	48652-05-28 23:31 G	19490986.37	19490986.48	19490986.59	0.1876	0.0284
Mercury	48661-10-19 08:38 G	19494416.80	19494416.86	19494416.91	0.1870	0.1590
Mercury	48664-07-25 00:29 G	19495426.42	19495426.52	19495426.62	0.1649	0.1331
Venus	48671-10-25 12:29 G	19498074.86	19498075.02	19498075.17	0.1780	0.0886
Mercury	48673-12-15 00:43 G	19498856.36	19498856.53	19498856.70	0.1654	0.0240
Mercury	48682-07-07 14:38 G	19501983.02	19501983.11	19501983.19	0.1882	0.1203
Mercury	48691-11-27 23:31 G	19505413.37	19505413.48	19505413.59	0.1876	0.0115
Venus	48699-03-10 08:53 G	19508072.71	19508072.87	19508073.04	0.1743	0.0515
Mercury	48701-04-20 08:24 G	19508843.78	19508843.85	19508843.92	0.1870	0.1449
Mercury	48704-01-25 00:58 G	19509853.49	19509853.54	19509853.60	0.1649	0.1560
Mercury	48713-06-16 01:26 G	19513283.39	19513283.56	19513283.73	0.1654	0.0032
Mercury	48722-01-06 14:38 G	19516410.03	19516410.11	19516410.18	0.1882	0.1378
Mercury	48722-11-06 01:41 G	19516713.53	19516713.57	19516713.62	0.1659	0.1586
Mercury	48731-05-29 23:31 G	19519840.36	19519840.48	19519840.59	0.1876	0.0062
Venus	48737-08-22 19:55 G	19522117.15	19522117.33	19522117.50	0.1785	0.0346
Mercury	48740-10-19 08:24 G	19523270.77	19523270.85	19523270.93	0.1870	0.1278
Mercury	48752-12-15 02:10 G	19527710.42	19527710.59	19527710.75	0.1654	0.0223
Mercury	48761-07-07 14:24 G	19530837.04	19530837.10	19530837.17	0.1881	0.1515
Mercury	48762-05-07 02:24 G	19531140.51	19531140.60	19531140.70	0.1659	0.1352
Venus	48765-01-05 18:00 G	19532115.10	19532115.25	19532115.39	0.1739	0.0952
Mercury	48770-11-27 23:31 G	19534267.36	19534267.48	19534267.59	0.1876	0.0209
Mercury	48780-04-19 08:24 G	19537697.76	19537697.85	19537697.94	0.1870	0.1111
Mercury	48792-06-15 02:38 G	19542137.45	19542137.61	19542137.78	0.1654	0.0455
Mercury	48801-01-05 14:24 G	19545264.05	19545264.10	19545264.15	0.1882	0.1683
Mercury	48801-11-05 03:07 G	19545567.51	19545567.63	19545567.75	0.1659	0.1127
Venus	48803-06-20 02:24 G	19546159.43	19546159.60	19546159.78	0.1789	0.0236
Moon	48809-05-17 03:36 G	19548317.47	19548317.65	19548317.83	0.1657	0.0769
Earth	48809-05-17 03:50 G	19548317.48	19548317.66	19548317.83	0.1657	0.0651 *

Mercury	48810-05-28 23:17 G	19548694.36	19548694.47	19548694.59	0.1876	0.0363
Mercury	48819-10-19 08:10 G	19552124.75	19552124.84	19552124.94	0.1870	0.0970
Venus	48830-11-03 02:53 G	19556157.52	19556157.62	19556157.72	0.1736	0.1397
Mercury	48831-12-15 03:36 G	19556564.50	19556564.65	19556564.80	0.1654	0.0696
Mercury	48840-07-06 14:24 G	19559691.08	19559691.10	19559691.12	0.1882	0.1848
Mercury	48841-05-06 03:36 G	19559994.51	19559994.65	19559994.80	0.1659	0.0900
Mercury	48849-11-26 23:17 G	19563121.36	19563121.47	19563121.58	0.1876	0.0520
Mercury	48859-04-19 08:10 G	19566551.74	19566551.84	19566551.95	0.1870	0.0801
Venus	48862-11-02 07:12 G	19567844.74	19567844.80	19567844.86	0.1748	0.1629
Venus	48869-04-16 08:53 G	19570201.72	19570201.87	19570202.03	0.1793	0.0828
Mercury	48871-06-15 04:05 G	19570991.53	19570991.67	19570991.81	0.1654	0.0909
Mercury	48880-11-04 04:34 G	19574421.53	19574421.69	19574421.84	0.1659	0.0656
Mercury	48889-05-27 23:17 G	19577548.36	19577548.47	19577548.58	0.1876	0.0676
Mercury	48898-10-18 08:10 G	19580978.74	19580978.84	19580978.95	0.1870	0.0636
Mercury	48910-12-15 04:48 G	19585418.58	19585418.70	19585418.82	0.1654	0.1148
Mercury	48920-05-06 05:02 G	19588848.55	19588848.71	19588848.87	0.1659	0.0435
Venus	48928-08-30 16:05 G	19591887.04	19591887.17	19591887.29	0.1744	0.1166
Mercury	48928-11-26 23:17 G	19591975.37	19591975.47	19591975.57	0.1876	0.0839
Venus	48935-02-12 15:50 G	19594244.05	19594244.16	19594244.26	0.1797	0.1413
Mercury	48938-04-19 08:10 G	19595405.73	19595405.84	19595405.95	0.1870	0.0496
Mercury	48947-09-09 17:02 G	19598836.18	19598836.21	19598836.24	0.1864	0.1780
Mercury	48950-06-15 05:31 G	19599845.64	19599845.73	19599845.82	0.1654	0.1387
Mercury	48959-11-05 05:46 G	19603275.57	19603275.74	19603275.91	0.1659	0.0202
Moon	48960-11-16 09:50 G	19603652.84	19603652.91	19603652.99	0.1874	0.1736
Mercury	48968-05-27 23:02 G	19606402.37	19606402.46	19606402.56	0.1876	0.0992
Mercury	48977-10-18 08:10 G	19609832.73	19609832.84	19609832.95	0.1870	0.0323
Mercury	48987-03-10 17:02 G	19613263.16	19613263.21	19613263.26	0.1863	0.1625
Mercury	48989-12-14 06:14 G	19614272.72	19614272.76	19614272.79	0.1654	0.1607
Venus	48994-06-28 00:43 G	19615929.37	19615929.53	19615929.69	0.1740	0.0701
Mercury	48999-05-06 06:29 G	19617702.60	19617702.77	19617702.94	0.1659	0.0035

50TH MILLENNIUM CE

This is a list of transits visible from Mars in the 50th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	49007-11-27 23:17	G	19620829.38	19620829.47	19620829.55	0.1876	0.1158	
Mercury	49008-09-26 06:43	G	19621132.73	19621132.78	19621132.84	0.1664	0.1558	
Mercury	49017-04-19 08:10	G	19624259.72	19624259.84	19624259.95	0.1870	0.0164	
Mercury	49026-09-09 17:02	G	19627690.14	19627690.21	19627690.28	0.1863	0.1472	
Venus	49032-12-10 09:22	G	19629973.80	19629973.89	19629973.98	0.1788	0.1512	
Mercury	49038-11-05 07:12	G	19632129.63	19632129.80	19632129.96	0.1659	0.0262	
Mercury	49047-05-28 23:02	G	19635256.38	19635256.46	19635256.54	0.1875	0.1311	
Mercury	49048-03-27 07:12	G	19635559.71	19635559.80	19635559.90	0.1665	0.1337	
Mercury	49056-10-18 07:55	G	19638686.72	19638686.83	19638686.94	0.1870	0.0018	
Venus	49060-04-25 09:36	G	19639971.73	19639971.90	19639972.08	0.1736	0.0257	
Mercury	49066-03-10 17:02	G	19642117.13	19642117.21	19642117.29	0.1864	0.1298	
Mercury	49078-05-06 07:41	G	19646556.66	19646556.82	19646556.98	0.1659	0.0488	
Mercury	49086-11-26 23:02	G	19649683.39	19649683.46	19649683.53	0.1876	0.1469	
Mercury	49087-09-26 08:10	G	19649986.71	19649986.84	19649986.96	0.1664	0.1098	
Moon	49093-05-19 22:34	G	19652049.26	19652049.44	19652049.62	0.1663	0.0287	
Earth	49093-05-20 04:05	G	19652049.48	19652049.67	19652049.86	0.1662	0.0024	*
Mercury	49096-04-18 07:55	G	19653113.72	19653113.83	19653113.95	0.1870	0.0156	
Venus	49098-10-07 15:50	G	19654016.01	19654016.16	19654016.31	0.1792	0.0931	
Mercury	49105-09-09 16:48	G	19656544.11	19656544.20	19656544.29	0.1863	0.1156	

Mercury	49117-11-05 08:38 G	19660983.71	19660983.86	19660984.01	0.1659	0.0735
Venus	49126-02-21 18:58 G	19664014.12	19664014.29	19664014.46	0.1733	0.0189
Mercury	49126-05-28 23:02 G	19664110.40	19664110.46	19664110.51	0.1876	0.1629
Mercury	49127-03-28 08:38 G	19664413.72	19664413.86	19664414.01	0.1664	0.0870
Mercury	49135-10-19 07:55 G	19667540.72	19667540.83	19667540.94	0.1870	0.0316
Mercury	49145-03-10 16:48 G	19670971.11	19670971.20	19670971.30	0.1863	0.0990
Mercury	49157-05-06 09:07 G	19675410.74	19675410.88	19675411.02	0.1659	0.0950
Venus	49164-08-04 22:48 G	19678058.28	19678058.45	19678058.62	0.1796	0.0362
Mercury	49165-11-26 23:02 G	19678537.42	19678537.46	19678537.49	0.1875	0.1788
Mercury	49166-09-26 09:22 G	19678840.73	19678840.89	19678841.04	0.1664	0.0640
Mercury	49175-04-19 07:41 G	19681967.71	19681967.82	19681967.94	0.1870	0.0468
Mercury	49184-09-08 16:48 G	19685398.10	19685398.20	19685398.31	0.1863	0.0826
Venus	49191-12-20 04:19 G	19688056.52	19688056.68	19688056.84	0.1729	0.0609
Mercury	49196-11-04 09:50 G	19689837.79	19689837.91	19689838.03	0.1659	0.1185
Mercury	49206-03-27 10:05 G	19693267.75	19693267.92	19693268.08	0.1664	0.0410
Mercury	49214-10-18 07:41 G	19696394.72	19696394.82	19696394.93	0.1870	0.0636
Mercury	49224-03-09 16:48 G	19699825.09	19699825.20	19699825.30	0.1863	0.0676
Venus	49230-06-02 05:02 G	19702100.53	19702100.71	19702100.88	0.1800	0.0248
Mercury	49236-05-05 10:34 G	19704264.86	19704264.94	19704265.03	0.1659	0.1425
Earth	49244-11-18 07:12 G	19707383.64	19707383.80	19707383.95	0.1866	0.1149
Moon	49244-11-18 09:22 G	19707383.73	19707383.89	19707384.05	0.1866	0.0951 *
Mercury	49245-09-25 10:48 G	19707694.78	19707694.95	19707695.12	0.1664	0.0170
Mercury	49254-04-18 07:41 G	19710821.72	19710821.82	19710821.93	0.1869	0.0797
Venus	49257-10-16 13:41 G	19712098.93	19712099.07	19712099.20	0.1725	0.1036
Mercury	49263-09-08 16:48 G	19714252.09	19714252.20	19714252.31	0.1863	0.0523
Mercury	49273-01-29 01:55 G	19717682.55	19717682.58	19717682.60	0.1857	0.1793
Mercury	49275-11-04 11:17 G	19718691.95	19718691.97	19718691.98	0.1659	0.1649
Mercury	49285-03-26 11:17 G	19722121.80	19722121.97	19722122.14	0.1664	0.0063
Mercury	49293-10-17 07:41 G	19725248.72	19725248.82	19725248.92	0.1870	0.0936
Mercury	49294-08-16 11:46 G	19725551.92	19725551.99	19725552.05	0.1670	0.1536

Venus	49296-03-29 10:48 G	19726142.80	19726142.95	19726143.11	0.1805	0.0875
Moon	49298-05-20 03:07 G	19726924.56	19726924.63	19726924.69	0.1671	0.1561
Mercury	49303-03-10 16:48 G	19728679.09	19728679.20	19728679.31	0.1863	0.0344
Mercury	49312-07-31 01:41 G	19732109.52	19732109.57	19732109.62	0.1857	0.1640
Venus	49323-08-14 23:31 G	19736141.39	19736141.48	19736141.58	0.1722	0.1427
Mercury	49324-09-25 12:00 G	19736548.84	19736549.00	19736549.17	0.1664	0.0294
Mercury	49333-04-18 07:41 G	19739675.73	19739675.82	19739675.91	0.1870	0.1107
Mercury	49334-02-15 12:00 G	19739978.91	19739979.00	19739979.11	0.1670	0.1324
Mercury	49342-09-08 16:34 G	19743106.08	19743106.19	19743106.30	0.1863	0.0204
Mercury	49352-01-30 01:41 G	19746536.50	19746536.57	19746536.64	0.1857	0.1479
Venus	49355-08-14 01:55 G	19747828.49	19747828.58	19747828.67	0.1733	0.1473
Venus	49362-01-25 17:31 G	19750185.13	19750185.23	19750185.33	0.1808	0.1482
Mercury	49364-03-26 12:43 G	19750975.87	19750976.03	19750976.19	0.1664	0.0520
Mercury	49372-10-17 07:41 G	19754102.74	19754102.82	19754102.90	0.1869	0.1266
Mercury	49373-08-16 12:58 G	19754405.91	19754406.04	19754406.16	0.1670	0.1084
Earth	49377-05-23 03:22 G	19755781.46	19755781.64	19755781.81	0.1668	0.0638
Moon	49377-05-23 08:53 G	19755781.70	19755781.87	19755782.04	0.1667	0.0529 *
Mercury	49382-03-09 16:34 G	19757533.08	19757533.19	19757533.31	0.1863	0.0062
Mercury	49391-07-31 01:41 G	19760963.49	19760963.57	19760963.65	0.1857	0.1321
Mercury	49403-09-26 13:26 G	19765402.91	19765403.06	19765403.21	0.1664	0.0755
Mercury	49412-04-18 07:26 G	19768529.74	19768529.81	19768529.89	0.1870	0.1416
Mercury	49413-02-15 13:41 G	19768832.93	19768833.07	19768833.21	0.1669	0.0841
Venus	49421-06-11 11:02 G	19771870.82	19771870.96	19771871.10	0.1730	0.1031
Mercury	49421-09-08 16:34 G	19771960.08	19771960.19	19771960.31	0.1863	0.0134
Mercury	49431-01-30 01:41 G	19775390.48	19775390.57	19775390.66	0.1857	0.1161
Mercury	49443-03-27 14:10 G	19779829.95	19779830.09	19779830.22	0.1664	0.0986
Mercury	49451-10-18 07:26 G	19782956.76	19782956.81	19782956.87	0.1870	0.1582
Mercury	49452-08-16 14:10 G	19783259.94	19783260.09	19783260.25	0.1670	0.0623
Venus	49459-11-23 12:00 G	19785914.91	19785915.00	19785915.09	0.1799	0.1532
Mercury	49461-03-09 16:34 G	19786387.07	19786387.19	19786387.30	0.1863	0.0279

Mercury	49470-07-31 01:41 G	19789817.47	19789817.57	19789817.66	0.1857	0.1006
Mercury	49482-09-25 14:53 G	19794257.01	19794257.12	19794257.23	0.1664	0.1224
Venus	49487-04-08 20:38 G	19795913.19	19795913.36	19795913.52	0.1726	0.0608
Mercury	49491-04-18 07:26 G	19797383.77	19797383.81	19797383.85	0.1869	0.1742
Mercury	49492-02-15 14:53 G	19797686.96	19797687.12	19797687.28	0.1670	0.0389
Mercury	49500-09-08 16:34 G	19800814.08	19800814.19	19800814.30	0.1863	0.0438
Mercury	49510-01-30 01:41 G	19804244.46	19804244.57	19804244.67	0.1857	0.0841
Mercury	49522-03-27 15:22 G	19808684.06	19808684.14	19808684.22	0.1664	0.1452
Venus	49525-09-20 18:14 G	19809957.11	19809957.26	19809957.41	0.1804	0.0928
Earth	49528-11-20 21:36 G	19811114.21	19811114.40	19811114.60	0.1857	0.0123
Moon	49528-11-21 01:55 G	19811114.36	19811114.58	19811114.79	0.1857	0.0037 *
Mercury	49531-08-17 15:36 G	19812113.99	19812114.15	19812114.32	0.1669	0.0150
Mercury	49540-03-09 16:34 G	19815241.08	19815241.19	19815241.30	0.1863	0.0611
Mercury	49549-07-31 01:26 G	19818671.46	19818671.56	19818671.67	0.1857	0.0687
Venus	49553-02-04 06:00 G	19819955.58	19819955.75	19819955.93	0.1723	0.0190
Mercury	49571-02-15 16:19 G	19826541.01	19826541.18	19826541.34	0.1670	0.0087
Mercury	49579-09-08 16:19 G	19829668.08	19829668.18	19829668.29	0.1863	0.0748
Mercury	49580-07-07 16:19 G	19829971.12	19829971.18	19829971.25	0.1675	0.1531
Moon	49582-05-23 12:58 G	19830655.91	19830656.04	19830656.18	0.1678	0.1179
Earth	49582-05-23 19:12 G	19830656.18	19830656.30	19830656.42	0.1677	0.1271 *
Mercury	49589-01-29 01:26 G	19833098.45	19833098.56	19833098.67	0.1857	0.0522
Venus	49591-07-19 00:43 G	19833999.36	19833999.53	19833999.70	0.1808	0.0335
Mercury	49598-06-21 10:34 G	19836528.91	19836528.94	19836528.96	0.1850	0.1792
Mercury	49610-08-16 17:02 G	19840968.04	19840968.21	19840968.37	0.1669	0.0316
Venus	49618-12-02 15:50 G	19843997.99	19843998.16	19843998.33	0.1719	0.0215
Mercury	49619-03-09 16:19 G	19844095.08	19844095.18	19844095.28	0.1863	0.0919
Mercury	49620-01-06 17:02 G	19844398.11	19844398.21	19844398.31	0.1675	0.1307
Mercury	49628-07-30 01:26 G	19847525.45	19847525.56	19847525.67	0.1857	0.0367
Mercury	49637-12-20 10:34 G	19850955.89	19850955.94	19850955.99	0.1850	0.1645
Mercury	49650-02-14 17:46 G	19855395.08	19855395.24	19855395.40	0.1669	0.0555

Venus	49657-05-15 06:29 G	19858041.60	19858041.77	19858041.94	0.1812	0.0303
Mercury	49658-09-07 16:19 G	19858522.09	19858522.18	19858522.28	0.1863	0.1082
Mercury	49659-07-07 17:46 G	19858825.11	19858825.24	19858825.36	0.1675	0.1076
Earth	49661-05-26 01:55 G	19859513.45	19859513.58	19859513.70	0.1673	0.1262
Moon	49661-05-26 04:05 G	19859513.52	19859513.67	19859513.82	0.1673	0.1089 *
Mercury	49668-01-29 01:26 G	19861952.45	19861952.56	19861952.67	0.1857	0.0205
Mercury	49677-06-20 10:34 G	19865382.87	19865382.94	19865383.00	0.1850	0.1478
Venus	49684-09-29 01:26 G	19868040.40	19868040.56	19868040.73	0.1715	0.0624
Mercury	49689-08-15 18:14 G	19869822.11	19869822.26	19869822.41	0.1669	0.0776
Mercury	49698-03-08 16:19 G	19872949.09	19872949.18	19872949.26	0.1863	0.1228
Mercury	49699-01-05 18:29 G	19873252.13	19873252.27	19873252.42	0.1675	0.0828
Mercury	49707-07-31 01:26 G	19876379.44	19876379.56	19876379.67	0.1857	0.0062
Mercury	49716-12-20 10:34 G	19879809.86	19879809.94	19879810.02	0.1850	0.1310
Venus	49723-03-13 12:14 G	19882083.86	19882084.01	19882084.15	0.1816	0.0954
Mercury	49729-02-14 18:58 G	19884249.16	19884249.29	19884249.42	0.1669	0.1013
Mercury	49737-09-07 16:19 G	19887376.10	19887376.18	19887376.25	0.1863	0.1391
Mercury	49738-07-07 18:58 G	19887679.14	19887679.29	19887679.45	0.1675	0.0609
Mercury	49747-01-29 01:26 G	19890806.44	19890806.56	19890806.67	0.1857	0.0128
Venus	49750-07-28 11:46 G	19892082.85	19892082.99	19892083.13	0.1712	0.1000
Mercury	49756-06-20 10:19 G	19894236.84	19894236.93	19894237.02	0.1850	0.1169
Mercury	49768-08-15 19:55 G	19898676.22	19898676.33	19898676.44	0.1669	0.1258
Mercury	49777-03-08 16:19 G	19901803.12	19901803.18	19901803.24	0.1863	0.1563
Mercury	49778-01-05 19:55 G	19902106.16	19902106.33	19902106.49	0.1675	0.0372
Mercury	49786-07-30 01:12 G	19905233.44	19905233.55	19905233.67	0.1857	0.0271
Venus	49789-01-07 18:29 G	19906126.18	19906126.27	19906126.35	0.1820	0.1587
Mercury	49795-12-20 10:19 G	19908663.84	19908663.93	19908664.03	0.1850	0.0996
Mercury	49808-02-15 20:24 G	19913103.27	19913103.35	19913103.42	0.1669	0.1480
Moon	49812-11-22 06:29 G	19914844.62	19914844.77	19914844.92	0.1847	0.1127
Earth	49812-11-22 15:07 G	19914844.95	19914845.13	19914845.31	0.1848	0.0704
Venus	49816-05-25 21:22 G	19916125.30	19916125.39	19916125.49	0.1708	0.1392

Mercury	49816-09-07 16:05 G	19916230.13	19916230.17	19916230.22	0.1863	0.1699
Mercury	49817-07-07 20:38 G	19916533.19	19916533.36	19916533.52	0.1675	0.0131
Mercury	49826-01-29 01:26 G	19919660.44	19919660.56	19919660.67	0.1857	0.0444
Mercury	49835-06-21 10:19 G	19923090.83	19923090.93	19923091.03	0.1850	0.0836
Venus	49848-05-24 22:48 G	19927812.35	19927812.45	19927812.55	0.1720	0.1418
Mercury	49857-01-05 21:07 G	19930960.21	19930960.38	19930960.55	0.1675	0.0096
Mercury	49865-07-30 01:12 G	19934087.44	19934087.55	19934087.66	0.1857	0.0589
Moon	49866-05-26 16:34 G	19934388.02	19934388.19	19934388.36	0.1683	0.0470
Earth	49866-05-26 17:17 G	19934388.05	19934388.22	19934388.40	0.1683	0.0675 *
Mercury	49866-05-28 21:07 G	19934390.32	19934390.38	19934390.45	0.1681	0.1534
Mercury	49874-12-20 10:19 G	19937517.82	19937517.93	19937518.04	0.1851	0.0683
Venus	49886-11-05 13:55 G	19941855.99	19941856.08	19941856.17	0.1811	0.1522
Mercury	49896-07-06 21:50 G	19945387.25	19945387.41	19945387.57	0.1675	0.0331
Mercury	49905-01-29 01:12 G	19948514.45	19948514.55	19948514.66	0.1857	0.0751
Mercury	49905-11-27 21:50 G	19948817.31	19948817.41	19948817.52	0.1681	0.1294
Venus	49914-03-23 08:38 G	19951854.73	19951854.86	19951855.00	0.1716	0.1017
Mercury	49914-06-21 10:19 G	19951944.82	19951944.93	19951945.04	0.1850	0.0519
Mercury	49923-11-11 19:26 G	19955375.28	19955375.31	19955375.33	0.1844	0.1783
Mercury	49936-01-06 22:48 G	19959814.29	19959814.45	19959814.60	0.1675	0.0583
Mercury	49944-07-30 01:12 G	19962941.45	19962941.55	19962941.65	0.1857	0.0912
Mercury	49945-05-28 22:34 G	19963244.31	19963244.44	19963244.57	0.1680	0.1064
Moon	49945-05-29 18:00 G	19963245.19	19963245.25	19963245.31	0.1680	0.1580
Venus	49952-09-02 19:55 G	19965898.18	19965898.33	19965898.48	0.1815	0.0893
Mercury	49953-12-20 10:19 G	19966371.82	19966371.93	19966372.04	0.1850	0.0354
Mercury	49963-05-12 19:26 G	19969802.26	19969802.31	19969802.36	0.1844	0.1620
Mercury	49975-07-07 23:17 G	19974241.32	19974241.47	19974241.61	0.1675	0.0799
Venus	49980-01-18 18:29 G	19975897.11	19975897.27	19975897.43	0.1713	0.0611
Mercury	49984-01-29 01:12 G	19977368.45	19977368.55	19977368.64	0.1857	0.1069
Mercury	49984-11-26 23:17 G	19977671.32	19977671.47	19977671.61	0.1681	0.0827
Mercury	49993-06-20 10:19 G	19980798.81	19980798.93	19980799.04	0.1851	0.0216

51ST MILLENNIUM CE

This is a list of transits visible from Mars in the 51st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	50002-11-10 19:26	G	19984229.24	19984229.31	19984229.38	0.1844	0.1448	
Mercury	50015-01-06 00:00	G	19988668.37	19988668.50	19988668.63	0.1675	0.1038	
Venus	50018-07-01 01:55	G	19989940.40	19989940.58	19989940.75	0.1819	0.0272	
Mercury	50023-07-30 01:12	G	19991795.46	19991795.55	19991795.63	0.1857	0.1223	
Mercury	50024-05-27 23:46	G	19992098.34	19992098.49	19992098.65	0.1681	0.0598	
Mercury	50032-12-19 10:19	G	19995225.81	19995225.93	19995226.04	0.1850	0.0040	
Mercury	50042-05-11 19:12	G	19998656.22	19998656.30	19998656.38	0.1844	0.1308	
Venus	50045-11-15 04:48	G	19999939.52	19999939.70	19999939.87	0.1709	0.0233	
Mercury	50054-07-07 00:43	G	20003095.42	20003095.53	20003095.64	0.1675	0.1282	
Mercury	50063-01-28 01:12	G	20006222.47	20006222.55	20006222.62	0.1857	0.1394	
Mercury	50063-11-27 00:43	G	20006525.36	20006525.53	20006525.69	0.1680	0.0359	
Mercury	50072-06-19 10:19	G	20009652.81	20009652.93	20009653.04	0.1850	0.0130	
Mercury	50081-11-09 19:12	G	20013083.21	20013083.30	20013083.39	0.1844	0.1143	
Venus	50084-04-27 07:12	G	20013982.63	20013982.80	20013982.97	0.1823	0.0401	
Mercury	50094-01-05 01:12	G	20017522.48	20017522.55	20017522.63	0.1675	0.1505	
Earth	50096-11-23 10:48	G	20018575.82	20018575.95	20018576.07	0.1839	0.1390	
Moon	50096-11-23 17:02	G	20018576.06	20018576.21	20018576.35	0.1839	0.1095	*
Mercury	50102-07-30 00:58	G	20020649.48	20020649.54	20020649.60	0.1857	0.1540	
Mercury	50103-05-29 01:12	G	20020952.39	20020952.55	20020952.72	0.1681	0.0128	

Venus	50111-09-13 14:38 G	20023981.94	20023982.11	20023982.29	0.1706	0.0167
Mercury	50111-12-20 10:05 G	20024079.81	20024079.92	20024080.04	0.1851	0.0281
Mercury	50121-05-11 19:26 G	20027510.21	20027510.31	20027510.40	0.1844	0.0976
Mercury	50142-01-28 00:58 G	20035076.50	20035076.54	20035076.59	0.1857	0.1702
Mercury	50142-11-27 01:55 G	20035379.42	20035379.58	20035379.75	0.1680	0.0114
Venus	50150-02-23 12:29 G	20038024.88	20038025.02	20038025.16	0.1828	0.1075
Earth	50150-05-29 14:24 G	20038119.92	20038120.10	20038120.29	0.1690	0.0108
Moon	50150-05-29 21:22 G	20038120.20	20038120.39	20038120.58	0.1689	0.0269 *
Mercury	50151-06-20 10:05 G	20038506.81	20038506.92	20038507.04	0.1850	0.0440
Mercury	50152-04-18 01:55 G	20038809.51	20038809.58	20038809.64	0.1686	0.1540
Mercury	50160-11-09 19:12 G	20041937.20	20041937.30	20041937.40	0.1844	0.0828
Venus	50177-07-11 01:12 G	20048024.38	20048024.55	20048024.71	0.1703	0.0530
Mercury	50182-05-28 02:38 G	20049806.45	20049806.61	20049806.77	0.1680	0.0341
Mercury	50190-12-19 10:05 G	20052933.82	20052933.92	20052934.03	0.1850	0.0602
Mercury	50191-10-18 02:38 G	20053236.51	20053236.61	20053236.72	0.1686	0.1294
Mercury	50200-05-11 19:12 G	20056364.19	20056364.30	20056364.41	0.1844	0.0664
Venus	50215-12-22 18:14 G	20062067.21	20062067.26	20062067.31	0.1831	0.1740
Mercury	50221-11-27 03:22 G	20064233.48	20064233.64	20064233.80	0.1680	0.0583
Mercury	50230-06-20 10:05 G	20067360.81	20067360.92	20067361.02	0.1851	0.0746
Mercury	50231-04-19 03:22 G	20067663.51	20067663.64	20067663.77	0.1686	0.1055
Mercury	50239-11-10 19:12 G	20070791.19	20070791.30	20070791.41	0.1844	0.0498
Venus	50243-05-09 11:17 G	20072066.82	20072066.97	20072067.11	0.1699	0.0905
Mercury	50249-04-02 04:19 G	20074221.65	20074221.68	20074221.71	0.1837	0.1749
Mercury	50261-05-28 04:05 G	20078660.52	20078660.67	20078660.81	0.1680	0.0813
Mercury	50269-12-19 10:05 G	20081787.82	20081787.92	20081788.02	0.1850	0.0916
Mercury	50270-10-18 03:50 G	20082090.52	20082090.66	20082090.81	0.1686	0.0834
Mercury	50279-05-11 18:58 G	20085218.18	20085218.29	20085218.41	0.1844	0.0364
Mercury	50288-10-01 04:19 G	20088648.63	20088648.68	20088648.74	0.1837	0.1590
Mercury	50300-11-27 04:48 G	20093087.57	20093087.70	20093087.83	0.1680	0.1050
Venus	50309-03-06 22:05 G	20096109.30	20096109.42	20096109.53	0.1696	0.1255

Mercury	50309-06-20 10:05 G	20096214.82	20096214.92	20096215.01	0.1850	0.1067
Mercury	50310-04-19 04:34 G	20096517.54	20096517.69	20096517.85	0.1686	0.0597
Venus	50313-10-19 14:38 G	20097797.01	20097797.11	20097797.22	0.1822	0.1460
Mercury	50318-11-10 19:12 G	20099645.18	20099645.30	20099645.41	0.1844	0.0193
Mercury	50328-04-02 04:19 G	20103075.61	20103075.68	20103075.75	0.1837	0.1428
Mercury	50340-05-28 05:17 G	20107514.62	20107514.72	20107514.83	0.1680	0.1284
Venus	50341-03-05 21:50 G	20107796.32	20107796.41	20107796.49	0.1707	0.1456
Mercury	50348-12-19 10:05 G	20110641.83	20110641.92	20110642.00	0.1851	0.1223
Mercury	50349-10-18 05:31 G	20110944.56	20110944.73	20110944.89	0.1686	0.0353
Mercury	50358-05-11 19:12 G	20114072.18	20114072.30	20114072.41	0.1844	0.0035
Mercury	50367-10-02 04:19 G	20117502.60	20117502.68	20117502.76	0.1837	0.1279
Venus	50375-01-02 08:24 G	20120151.80	20120151.85	20120151.90	0.1693	0.1613
Venus	50379-08-16 20:10 G	20121839.18	20121839.34	20121839.50	0.1826	0.0795
Mercury	50379-11-27 06:00 G	20121941.68	20121941.75	20121941.82	0.1680	0.1517
Moon	50380-11-26 09:07 G	20122306.81	20122306.88	20122306.96	0.1830	0.1708
Mercury	50388-06-19 10:05 G	20125068.84	20125068.92	20125068.99	0.1850	0.1384
Mercury	50389-04-18 06:00 G	20125371.58	20125371.75	20125371.91	0.1686	0.0142
Mercury	50397-11-09 18:58 G	20128499.18	20128499.29	20128499.41	0.1844	0.0121
Venus	50407-01-01 07:41 G	20131838.69	20131838.82	20131838.96	0.1704	0.1064
Mercury	50407-04-02 04:19 G	20131929.59	20131929.68	20131929.77	0.1837	0.1112
Mercury	50427-12-19 09:50 G	20139495.85	20139495.91	20139495.98	0.1850	0.1543
Mercury	50428-10-17 06:43 G	20139798.61	20139798.78	20139798.95	0.1686	0.0111
Moon	50434-06-01 05:31 G	20141851.54	20141851.73	20141851.92	0.1696	0.0447
Earth	50434-06-01 11:02 G	20141851.78	20141851.96	20141852.14	0.1696	0.0456 *
Mercury	50437-05-10 18:58 G	20142926.18	20142926.29	20142926.41	0.1844	0.0287
Mercury	50438-03-09 06:29 G	20143228.71	20143228.77	20143228.83	0.1692	0.1553
Venus	50445-06-13 01:41 G	20145881.39	20145881.57	20145881.74	0.1831	0.0140
Mercury	50446-10-01 04:05 G	20146356.58	20146356.67	20146356.77	0.1837	0.0963
Mercury	50467-06-19 09:50 G	20153922.87	20153922.91	20153922.96	0.1851	0.1690
Mercury	50468-04-17 07:26 G	20154225.64	20154225.81	20154225.97	0.1686	0.0346

Venus	50472-10-28 18:14 G	20155881.10	20155881.26	20155881.41	0.1700	0.0694
Mercury	50476-11-08 18:58 G	20157353.18	20157353.29	20157353.41	0.1844	0.0451
Mercury	50477-09-07 07:12 G	20157655.70	20157655.80	20157655.90	0.1692	0.1315
Mercury	50486-04-01 04:05 G	20160783.57	20160783.67	20160783.78	0.1837	0.0805
Mercury	50507-10-18 07:55 G	20168652.67	20168652.83	20168652.99	0.1686	0.0569
Venus	50511-04-11 06:29 G	20169923.60	20169923.77	20169923.93	0.1835	0.0573
Mercury	50516-05-10 18:58 G	20171780.18	20171780.29	20171780.40	0.1844	0.0588
Mercury	50517-03-09 07:55 G	20172082.70	20172082.83	20172082.96	0.1692	0.1072
Mercury	50525-10-01 04:05 G	20175210.57	20175210.67	20175210.78	0.1837	0.0644
Venus	50538-08-27 04:19 G	20179923.51	20179923.68	20179923.85	0.1697	0.0315
Mercury	50547-04-18 08:38 G	20183079.71	20183079.86	20183080.01	0.1686	0.0805
Mercury	50555-11-09 18:58 G	20186207.18	20186207.29	20186207.39	0.1844	0.0754
Mercury	50556-09-07 08:24 G	20186509.71	20186509.85	20186510.00	0.1692	0.0851
Mercury	50565-04-01 04:05 G	20189637.56	20189637.67	20189637.78	0.1837	0.0486
Mercury	50574-08-22 13:12 G	20193068.01	20193068.05	20193068.09	0.1830	0.1726
Venus	50577-02-05 11:17 G	20193965.85	20193965.97	20193966.10	0.1839	0.1281
Mercury	50586-10-17 09:22 G	20197506.76	20197506.89	20197507.02	0.1686	0.1048
Mercury	50595-05-10 18:58 G	20200634.19	20200634.29	20200634.39	0.1844	0.0917
Mercury	50596-03-08 09:07 G	20200936.73	20200936.88	20200937.04	0.1692	0.0620
Venus	50604-06-24 14:53 G	20203965.95	20203966.12	20203966.29	0.1694	0.0045
Mercury	50604-10-01 04:05 G	20204064.56	20204064.67	20204064.78	0.1837	0.0337
Mercury	50614-02-21 13:12 G	20207494.99	20207495.05	20207495.11	0.1830	0.1555
Mercury	50626-04-18 09:50 G	20211933.80	20211933.91	20211934.02	0.1686	0.1266
Mercury	50634-11-09 18:43 G	20215061.19	20215061.28	20215061.38	0.1844	0.1056
Mercury	50635-09-08 10:05 G	20215363.75	20215363.92	20215364.08	0.1692	0.0370
Mercury	50644-04-01 04:05 G	20218491.56	20218491.67	20218491.79	0.1837	0.0169
Mercury	50653-08-22 13:12 G	20221921.98	20221922.05	20221922.12	0.1830	0.1400
Mercury	50665-10-17 10:34 G	20226360.87	20226360.94	20226361.02	0.1686	0.1511
Venus	50670-04-22 01:26 G	20228008.39	20228008.56	20228008.72	0.1691	0.0409
Mercury	50674-05-10 18:43 G	20229488.20	20229488.28	20229488.37	0.1844	0.1221

Mercury	50675-03-09 10:19 G	20229790.77	20229790.93	20229791.10	0.1692	0.0160
Mercury	50683-10-01 04:05 G	20232918.55	20232918.67	20232918.78	0.1837	0.0067
Mercury	50693-02-20 13:12 G	20236348.96	20236349.05	20236349.13	0.1831	0.1249
Mercury	50713-11-09 18:43 G	20243915.21	20243915.28	20243915.36	0.1844	0.1384
Mercury	50714-09-08 11:02 G	20244217.80	20244217.96	20244218.13	0.1692	0.0085
Moon	50718-06-05 02:38 G	20245583.47	20245583.61	20245583.76	0.1703	0.0969
Earth	50718-06-05 05:46 G	20245583.59	20245583.74	20245583.90	0.1702	0.0940 *
Mercury	50723-04-02 04:05 G	20247345.55	20247345.67	20247345.78	0.1837	0.0154
Mercury	50724-01-29 11:02 G	20247647.90	20247647.96	20247648.01	0.1698	0.1588
Mercury	50732-08-22 13:12 G	20250775.96	20250776.05	20250776.14	0.1830	0.1090
Venus	50736-02-18 12:14 G	20252050.86	20252051.01	20252051.17	0.1688	0.0750
Venus	50740-10-01 13:55 G	20253737.95	20253738.08	20253738.20	0.1834	0.1303
Moon	50743-12-03 00:29 G	20254895.38	20254895.52	20254895.67	0.1827	0.1313
Earth	50743-12-03 05:46 G	20254895.70	20254895.74	20254895.78	0.1827	0.1784
Mercury	50753-05-10 18:43 G	20258342.21	20258342.28	20258342.34	0.1844	0.1522
Mercury	50754-03-09 11:46 G	20258644.83	20258644.99	20258645.16	0.1692	0.0330
Mercury	50762-10-01 04:05 G	20261772.55	20261772.67	20261772.78	0.1837	0.0305
Mercury	50763-07-30 11:31 G	20262074.88	20262074.98	20262075.08	0.1698	0.1359
Mercury	50772-02-21 13:12 G	20265202.95	20265203.05	20265203.15	0.1830	0.0930
Mercury	50792-11-08 18:43 G	20272769.24	20272769.28	20272769.32	0.1844	0.1686
Mercury	50793-09-07 12:14 G	20273071.86	20273072.01	20273072.17	0.1692	0.0547
Venus	50801-12-15 22:48 G	20276093.32	20276093.45	20276093.58	0.1685	0.1099
Mercury	50802-04-01 03:50 G	20276199.55	20276199.66	20276199.77	0.1837	0.0448
Mercury	50803-01-28 12:14 G	20276501.88	20276502.01	20276502.13	0.1698	0.1125
Venus	50806-07-29 18:29 G	20277780.11	20277780.27	20277780.44	0.1838	0.0605
Mercury	50811-08-22 12:58 G	20279629.94	20279630.04	20279630.15	0.1830	0.0786
Mercury	50833-03-08 12:58 G	20287498.89	20287499.04	20287499.19	0.1692	0.0775
Venus	50833-12-14 21:22 G	20287780.32	20287780.39	20287780.46	0.1695	0.1527
Mercury	50841-09-30 03:50 G	20290626.55	20290626.66	20290626.77	0.1837	0.0598
Mercury	50842-07-29 12:43 G	20290928.89	20290929.03	20290929.17	0.1698	0.0895

Mercury	50851-02-20 12:58 G	20294056.94	20294057.04	20294057.15	0.1830	0.0620
Venus	50867-10-13 09:50 G	20300135.82	20300135.91	20300136.00	0.1682	0.1440
Venus	50872-05-25 23:31 G	20301822.31	20301822.48	20301822.66	0.1842	0.0100
Mercury	50872-09-06 13:55 G	20301925.94	20301926.08	20301926.21	0.1692	0.1027
Mercury	50881-03-31 03:50 G	20305053.56	20305053.66	20305053.77	0.1837	0.0767
Mercury	50882-01-27 13:26 G	20305355.91	20305356.06	20305356.21	0.1698	0.0663
Mercury	50890-08-21 12:58 G	20308483.93	20308484.04	20308484.15	0.1830	0.0466
Venus	50899-10-12 07:55 G	20311822.71	20311822.83	20311822.96	0.1691	0.1166
Mercury	50900-01-11 22:19 G	20311914.39	20311914.43	20311914.47	0.1824	0.1678
Mercury	50912-03-08 14:10 G	20316352.98	20316353.09	20316353.21	0.1692	0.1236
Mercury	50920-09-30 03:36 G	20319480.55	20319480.65	20319480.75	0.1837	0.0910
Mercury	50921-07-29 14:10 G	20319782.93	20319783.09	20319783.25	0.1698	0.0427
Earth	50923-06-04 12:14 G	20320457.93	20320458.01	20320458.09	0.1714	0.1541
Moon	50923-06-04 13:26 G	20320457.97	20320458.06	20320458.15	0.1714	0.1543 *
Mercury	50930-02-20 12:58 G	20322910.93	20322911.04	20322911.15	0.1831	0.0312
Venus	50938-03-24 03:50 G	20325864.50	20325864.66	20325864.81	0.1846	0.0841
Mercury	50939-07-13 22:19 G	20326341.36	20326341.43	20326341.49	0.1823	0.1519
Mercury	50951-09-07 14:53 G	20330780.05	20330780.12	20330780.20	0.1692	0.1479
Mercury	50960-03-31 03:50 G	20333907.56	20333907.66	20333907.75	0.1837	0.1070
Mercury	50961-01-27 14:38 G	20334209.95	20334210.11	20334210.28	0.1698	0.0200
Venus	50965-08-09 18:29 G	20335865.11	20335865.27	20335865.42	0.1688	0.0796
Mercury	50969-08-21 12:58 G	20337337.92	20337338.04	20337338.15	0.1830	0.0159
Mercury	50979-01-11 22:05 G	20340768.35	20340768.42	20340768.50	0.1823	0.1373
Mercury	50999-09-30 03:36 G	20348334.57	20348334.65	20348334.74	0.1837	0.1227
Mercury	51000-07-29 15:22 G	20348636.97	20348637.14	20348637.31	0.1698	0.0034

52ND MILLENNIUM CE

This is a list of transits visible from Mars in the 52nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	51002-06-07 22:34	G	20349315.32	20349315.44	20349315.55	0.1709	0.1350	
Moon	51002-06-08 05:17	G	20349315.64	20349315.72	20349315.81	0.1709	0.1505	
Venus	51004-01-20 08:24	G	20349906.76	20349906.85	20349906.94	0.1850	0.1579	
Mercury	51009-02-20 12:58	G	20351764.92	20351765.04	20351765.15	0.1830	0.0026	
Mercury	51009-12-19 15:07	G	20352067.09	20352067.13	20352067.17	0.1704	0.1645	
Mercury	51018-07-13 22:05	G	20355195.34	20355195.42	20355195.51	0.1823	0.1213	
Moon	51027-12-05 02:53	G	20358626.48	20358626.62	20358626.77	0.1818	0.1004	
Earth	51027-12-05 04:05	G	20358626.53	20358626.67	20358626.81	0.1818	0.1246	*
Venus	51031-06-08 05:02	G	20359907.54	20359907.71	20359907.88	0.1685	0.0450	
Mercury	51039-04-01 03:36	G	20362761.58	20362761.65	20362761.72	0.1837	0.1374	
Mercury	51040-01-28 16:05	G	20363064.00	20363064.17	20363064.33	0.1698	0.0273	
Mercury	51048-08-21 12:43	G	20366191.92	20366192.03	20366192.15	0.1830	0.0167	
Mercury	51049-06-19 15:50	G	20366494.07	20366494.16	20366494.25	0.1704	0.1409	
Mercury	51058-01-11 22:05	G	20369622.33	20369622.42	20369622.52	0.1824	0.1049	
Mercury	51078-09-30 03:36	G	20377188.59	20377188.65	20377188.71	0.1837	0.1527	
Mercury	51079-07-29 16:34	G	20377491.03	20377491.19	20377491.35	0.1698	0.0501	
Mercury	51088-02-20 12:58	G	20380618.92	20380619.04	20380619.15	0.1830	0.0324	
Mercury	51088-12-18 16:19	G	20380921.06	20380921.18	20380921.30	0.1705	0.1188	
Venus	51097-04-04 15:50	G	20383949.99	20383950.16	20383950.33	0.1682	0.0100	
Mercury	51097-07-12 22:05	G	20384049.32	20384049.42	20384049.52	0.1823	0.0912	
Venus	51101-11-17 06:00	G	20385636.69	20385636.75	20385636.80	0.1841	0.1748	
Mercury	51118-04-01 03:36	G	20391615.61	20391615.65	20391615.69	0.1837	0.1695	

Mercury	51119-01-28 17:17 G	20391918.07	20391918.22	20391918.37	0.1698	0.0733
Mercury	51127-08-22 12:43 G	20395045.92	20395046.03	20395046.14	0.1830	0.0466
Mercury	51128-06-19 17:02 G	20395348.07	20395348.21	20395348.34	0.1704	0.0953
Mercury	51137-01-11 22:05 G	20398476.31	20398476.42	20398476.53	0.1824	0.0742
Mercury	51157-09-30 03:22 G	20406042.64	20406042.64	20406042.65	0.1837	0.1832
Mercury	51158-07-29 18:00 G	20406345.11	20406345.25	20406345.38	0.1698	0.0973
Venus	51163-02-01 02:53 G	20407992.45	20407992.62	20407992.79	0.1680	0.0233
Mercury	51167-02-20 12:43 G	20409472.92	20409473.03	20409473.14	0.1831	0.0621
Venus	51167-09-14 11:17 G	20409678.83	20409678.97	20409679.12	0.1845	0.1067
Mercury	51167-12-19 17:46 G	20409775.09	20409775.24	20409775.39	0.1704	0.0712
Mercury	51176-07-12 22:05 G	20412903.31	20412903.42	20412903.53	0.1823	0.0583
Mercury	51185-12-03 07:12 G	20416333.79	20416333.80	20416333.82	0.1817	0.1786
Mercury	51198-01-27 18:29 G	20420772.16	20420772.27	20420772.39	0.1698	0.1199
Mercury	51206-08-21 12:43 G	20423899.93	20423900.03	20423900.13	0.1830	0.0776
Moon	51207-06-06 20:10 G	20424189.23	20424189.34	20424189.45	0.1722	0.1375
Earth	51207-06-07 03:22 G	20424189.51	20424189.64	20424189.77	0.1721	0.1227
Mercury	51207-06-19 18:14 G	20424202.10	20424202.26	20424202.42	0.1704	0.0496
Mercury	51216-01-11 21:50 G	20427330.30	20427330.41	20427330.53	0.1823	0.0444
Mercury	51225-06-03 07:12 G	20430760.75	20430760.80	20430760.85	0.1817	0.1628
Venus	51228-11-28 13:55 G	20432034.92	20432035.08	20432035.24	0.1677	0.0567
Venus	51233-07-11 15:36 G	20433720.98	20433721.15	20433721.32	0.1849	0.0332
Mercury	51237-07-28 19:12 G	20435199.21	20435199.30	20435199.39	0.1698	0.1429
Mercury	51246-02-19 12:43 G	20438326.93	20438327.03	20438327.13	0.1830	0.0934
Mercury	51246-12-18 18:58 G	20438629.12	20438629.29	20438629.45	0.1704	0.0249
Mercury	51255-07-12 22:05 G	20441757.30	20441757.42	20441757.53	0.1823	0.0287
Mercury	51264-12-02 07:12 G	20445187.73	20445187.80	20445187.87	0.1816	0.1475
Mercury	51277-01-26 19:55 G	20449626.31	20449626.33	20449626.35	0.1698	0.1677
Mercury	51285-08-20 12:43 G	20452753.94	20452754.03	20452754.12	0.1830	0.1084
Moon	51286-06-09 10:05 G	20453046.82	20453046.92	20453047.02	0.1717	0.1496
Mercury	51286-06-18 19:41 G	20453056.15	20453056.32	20453056.48	0.1704	0.0032

Venus	51294-09-26 01:12 G	20456077.40	20456077.55	20456077.69	0.1674	0.0894
Mercury	51295-01-10 22:05 G	20456184.30	20456184.42	20456184.53	0.1823	0.0127
Venus	51299-05-08 20:10 G	20457763.17	20457763.34	20457763.51	0.1853	0.0398
Mercury	51304-06-03 07:12 G	20459614.72	20459614.80	20459614.88	0.1817	0.1322
Earth	51311-12-07 04:48 G	20462357.53	20462357.70	20462357.87	0.1809	0.0839
Moon	51311-12-07 12:58 G	20462357.87	20462358.04	20462358.21	0.1809	0.0934 *
Mercury	51325-02-19 12:43 G	20467180.94	20467181.03	20467181.11	0.1830	0.1245
Mercury	51325-12-18 20:10 G	20467483.17	20467483.34	20467483.50	0.1704	0.0210
Venus	51326-09-25 22:34 G	20467764.42	20467764.44	20467764.46	0.1683	0.1668
Mercury	51334-07-12 21:50 G	20470611.29	20470611.41	20470611.53	0.1823	0.0024
Mercury	51335-05-10 20:10 G	20470913.25	20470913.34	20470913.42	0.1711	0.1468
Mercury	51343-12-03 07:12 G	20474041.71	20474041.80	20474041.89	0.1817	0.1156
Venus	51360-07-24 12:14 G	20480119.89	20480120.01	20480120.13	0.1671	0.1223
Mercury	51364-08-20 12:29 G	20481607.95	20481608.02	20481608.10	0.1830	0.1393
Venus	51365-03-06 00:14 G	20481805.37	20481805.51	20481805.64	0.1856	0.1167
Mercury	51365-06-18 20:53 G	20481910.21	20481910.37	20481910.53	0.1704	0.0448
Mercury	51374-01-10 21:50 G	20485038.30	20485038.41	20485038.53	0.1824	0.0200
Mercury	51374-11-08 20:38 G	20485340.25	20485340.36	20485340.47	0.1711	0.1248
Mercury	51383-06-03 07:12 G	20488468.70	20488468.80	20488468.89	0.1816	0.1012
Venus	51392-07-23 09:07 G	20491806.77	20491806.88	20491806.99	0.1680	0.1306
Mercury	51404-02-20 12:43 G	20496034.97	20496035.03	20496035.08	0.1831	0.1554
Mercury	51404-12-18 21:36 G	20496337.25	20496337.40	20496337.55	0.1704	0.0688
Mercury	51413-07-12 21:50 G	20499465.30	20499465.41	20499465.52	0.1823	0.0349
Mercury	51414-05-10 21:07 G	20499767.25	20499767.38	20499767.52	0.1711	0.1015
Mercury	51422-12-03 07:12 G	20502895.70	20502895.80	20502895.90	0.1817	0.0853
Venus	51426-05-22 23:17 G	20504162.41	20504162.47	20504162.53	0.1669	0.1550
Mercury	51443-08-21 12:29 G	20510461.98	20510462.02	20510462.06	0.1830	0.1704
Mercury	51444-06-18 22:05 G	20510764.28	20510764.42	20510764.56	0.1704	0.0911
Mercury	51453-01-10 21:50 G	20513892.30	20513892.41	20513892.52	0.1824	0.0494
Mercury	51453-11-08 22:05 G	20514194.27	20514194.42	20514194.57	0.1711	0.0761

Venus	51458-05-21 20:10 G	20515849.20	20515849.34	20515849.48	0.1677	0.0978
Mercury	51462-06-03 07:12 G	20517322.69	20517322.80	20517322.90	0.1817	0.0693
Mercury	51483-12-18 22:48 G	20525191.33	20525191.45	20525191.57	0.1704	0.1156
Earth	51491-06-09 18:00 G	20527921.08	20527921.25	20527921.41	0.1729	0.0924
Moon	51491-06-09 23:02 G	20527921.29	20527921.46	20527921.63	0.1729	0.0645 *
Mercury	51492-07-11 21:50 G	20528319.30	20528319.41	20528319.52	0.1823	0.0654
Mercury	51493-05-09 22:19 G	20528621.28	20528621.43	20528621.59	0.1711	0.0554
Mercury	51501-12-03 06:58 G	20531749.68	20531749.79	20531749.90	0.1816	0.0545
Mercury	51511-04-25 16:19 G	20535180.15	20535180.18	20535180.21	0.1810	0.1726
Mercury	51523-06-19 23:31 G	20539618.38	20539618.48	20539618.57	0.1704	0.1387
Venus	51524-03-19 07:26 G	20539891.65	20539891.81	20539891.97	0.1674	0.0642
Venus	51528-10-30 02:53 G	20541577.52	20541577.62	20541577.73	0.1852	0.1492
Mercury	51532-01-11 21:50 G	20542746.31	20542746.41	20542746.51	0.1823	0.0817
Mercury	51532-11-08 23:02 G	20543048.30	20543048.46	20543048.63	0.1711	0.0313
Mercury	51541-06-03 06:58 G	20546176.68	20546176.79	20546176.91	0.1817	0.0390
Mercury	51550-10-24 16:19 G	20549607.13	20549607.18	20549607.24	0.1810	0.1566
Mercury	51562-12-19 00:00 G	20554045.45	20554045.50	20554045.55	0.1704	0.1619
Mercury	51571-07-12 21:36 G	20557173.31	20557173.40	20557173.50	0.1824	0.0958
Mercury	51572-05-10 00:00 G	20557475.33	20557475.50	20557475.66	0.1710	0.0068
Mercury	51580-12-02 07:12 G	20560603.68	20560603.80	20560603.91	0.1817	0.0228
Venus	51590-01-14 18:43 G	20563934.11	20563934.28	20563934.45	0.1672	0.0323
Mercury	51590-04-24 16:19 G	20564034.11	20564034.18	20564034.25	0.1810	0.1410
Venus	51594-08-27 08:10 G	20565619.68	20565619.84	20565619.99	0.1855	0.0783
Moon	51595-12-09 01:26 G	20566088.37	20566088.56	20566088.76	0.1800	0.0427
Earth	51595-12-09 08:10 G	20566088.66	20566088.84	20566089.03	0.1800	0.0581 *
Mercury	51611-01-10 21:50 G	20571600.32	20571600.41	20571600.50	0.1824	0.1126
Mercury	51611-11-09 00:29 G	20571902.35	20571902.52	20571902.68	0.1710	0.0159
Mercury	51620-06-02 06:58 G	20575030.67	20575030.79	20575030.91	0.1816	0.0078
Mercury	51621-03-31 00:00 G	20575332.43	20575332.50	20575332.57	0.1717	0.1545
Mercury	51629-10-23 16:19 G	20578461.10	20578461.18	20578461.26	0.1810	0.1259

Mercury	51650-07-11 21:36 G	20586027.32	20586027.40	20586027.49	0.1823	0.1280
Mercury	51651-05-10 00:58 G	20586329.38	20586329.54	20586329.71	0.1710	0.0395
Venus	51655-11-12 06:00 G	20587976.58	20587976.75	20587976.92	0.1669	0.0008
Mercury	51659-12-02 06:58 G	20589457.68	20589457.79	20589457.91	0.1817	0.0087
Venus	51660-06-23 12:00 G	20589661.82	20589662.00	20589662.17	0.1859	0.0036
Mercury	51660-09-29 00:43 G	20589759.43	20589759.53	20589759.64	0.1717	0.1310
Mercury	51669-04-23 16:19 G	20592888.09	20592888.18	20592888.27	0.1810	0.1095
Mercury	51690-01-09 21:36 G	20600454.33	20600454.40	20600454.47	0.1824	0.1424
Mercury	51690-11-08 01:55 G	20600756.43	20600756.58	20600756.73	0.1710	0.0645
Mercury	51699-06-02 06:58 G	20603884.68	20603884.79	20603884.91	0.1817	0.0251
Mercury	51700-03-31 01:26 G	20604186.43	20604186.56	20604186.68	0.1717	0.1083
Mercury	51708-10-23 16:19 G	20607315.08	20607315.18	20607315.28	0.1810	0.0943
Venus	51721-09-09 17:31 G	20612019.06	20612019.23	20612019.40	0.1667	0.0313
Venus	51726-04-21 16:19 G	20613704.02	20613704.18	20613704.34	0.1863	0.0742
Mercury	51729-07-11 21:36 G	20614881.35	20614881.40	20614881.46	0.1823	0.1585
Mercury	51730-05-10 02:24 G	20615183.45	20615183.60	20615183.74	0.1710	0.0857
Mercury	51738-12-02 06:58 G	20618311.68	20618311.79	20618311.90	0.1816	0.0391
Mercury	51739-09-30 02:10 G	20618613.45	20618613.59	20618613.73	0.1717	0.0832
Mercury	51748-04-23 16:19 G	20621742.08	20621742.18	20621742.29	0.1810	0.0787
Mercury	51769-01-09 21:36 G	20629308.37	20629308.40	20629308.43	0.1823	0.1746
Mercury	51769-11-08 03:07 G	20629610.50	20629610.63	20629610.75	0.1710	0.1104
Earth	51775-06-12 08:10 G	20631652.67	20631652.84	20631653.02	0.1736	0.0627
Moon	51775-06-12 10:48 G	20631652.75	20631652.95	20631653.16	0.1736	0.0344 *
Mercury	51778-06-02 06:58 G	20632738.68	20632738.79	20632738.90	0.1817	0.0547
Mercury	51779-03-31 02:38 G	20633040.46	20633040.61	20633040.76	0.1717	0.0611
Venus	51787-07-08 04:48 G	20636061.54	20636061.70	20636061.86	0.1664	0.0633
Mercury	51787-10-23 16:19 G	20636169.07	20636169.18	20636169.29	0.1810	0.0630
Venus	51792-02-16 19:55 G	20637746.23	20637746.33	20637746.43	0.1866	0.1538
Mercury	51809-05-10 03:50 G	20644037.56	20644037.66	20644037.76	0.1710	0.1348
Mercury	51817-12-02 06:58 G	20647165.69	20647165.79	20647165.90	0.1817	0.0713

Mercury	51818-09-30 03:22 G	20647467.48	20647467.64	20647467.80	0.1717	0.0374
Mercury	51827-04-24 16:19 G	20650596.07	20650596.18	20650596.29	0.1810	0.0475
Mercury	51836-09-14 01:41 G	20654026.52	20654026.57	20654026.61	0.1803	0.1646
Mercury	51848-11-08 04:19 G	20658464.62	20658464.68	20658464.74	0.1710	0.1567
Venus	51853-05-05 16:19 G	20660104.03	20660104.18	20660104.32	0.1662	0.0944
Mercury	51857-06-02 06:58 G	20661592.68	20661592.79	20661592.89	0.1816	0.0854
Mercury	51858-03-31 04:05 G	20661894.50	20661894.67	20661894.83	0.1717	0.0136
Mercury	51866-10-23 16:19 G	20665023.06	20665023.18	20665023.29	0.1810	0.0321
Mercury	51876-03-15 01:41 G	20668453.50	20668453.57	20668453.63	0.1803	0.1480
Earth	51879-12-11 14:24 G	20669819.91	20669820.10	20669820.28	0.1792	0.0470
Moon	51879-12-11 14:38 G	20669819.94	20669820.11	20669820.27	0.1792	0.0644 *
Venus	51885-05-04 12:29 G	20671790.96	20671791.02	20671791.09	0.1670	0.1546
Mercury	51896-12-01 06:58 G	20676019.69	20676019.79	20676019.88	0.1817	0.1014
Mercury	51897-09-29 04:34 G	20676321.53	20676321.69	20676321.86	0.1717	0.0106
Mercury	51906-04-24 16:19 G	20679450.06	20679450.18	20679450.29	0.1810	0.0162
Mercury	51907-02-20 04:05 G	20679751.62	20679751.67	20679751.72	0.1724	0.1631
Mercury	51915-09-15 01:26 G	20682880.49	20682880.56	20682880.64	0.1803	0.1344
Venus	51919-03-04 03:50 G	20684146.55	20684146.66	20684146.77	0.1659	0.1245
Mercury	51936-06-02 06:58 G	20690446.70	20690446.79	20690446.88	0.1817	0.1176
Mercury	51937-03-31 05:17 G	20690748.56	20690748.72	20690748.88	0.1717	0.0329
Mercury	51945-10-23 16:19 G	20693877.06	20693877.18	20693877.29	0.1810	0.0050
Mercury	51946-08-21 04:48 G	20694178.61	20694178.70	20694178.80	0.1724	0.1387
Venus	51951-03-02 23:46 G	20695833.37	20695833.49	20695833.61	0.1667	0.1216
Mercury	51955-03-16 01:41 G	20697307.48	20697307.57	20697307.65	0.1803	0.1176
Venus	51955-10-12 23:17 G	20697518.34	20697518.47	20697518.61	0.1862	0.1191
Mercury	51975-12-02 06:43 G	20704873.71	20704873.78	20704873.86	0.1817	0.1318
Mercury	51976-09-29 06:00 G	20705175.60	20705175.75	20705175.91	0.1717	0.0583
Venus	51984-12-29 15:07 G	20708189.08	20708189.13	20708189.19	0.1657	0.1555
Mercury	51985-04-23 16:19 G	20708304.06	20708304.18	20708304.29	0.1810	0.0154
Mercury	51986-02-19 05:31 G	20708605.61	20708605.73	20708605.85	0.1723	0.1153

Mercury 51994-09-14 01:41 G 20711734.47 20711734.57 20711734.66 0.1803 0.1019

53RD MILLENNIUM CE

This is a list of transits visible from Mars in the 53rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	52015-06-02 06:58	G	20719300.72	20719300.79	20719300.85	0.1817	0.1475	
Mercury	52016-03-30 06:29	G	20719602.63	20719602.77	20719602.92	0.1717	0.0798	
Venus	52016-12-28 11:17	G	20719875.83	20719875.97	20719876.12	0.1665	0.0908	
Venus	52021-08-09 03:50	G	20721560.49	20721560.66	20721560.83	0.1865	0.0450	
Mercury	52024-10-22 16:05	G	20722731.06	20722731.17	20722731.29	0.1810	0.0309	
Mercury	52025-08-20 06:00	G	20723032.61	20723032.75	20723032.89	0.1724	0.0928	
Mercury	52034-03-15 01:26	G	20726161.46	20726161.56	20726161.66	0.1803	0.0872	
Mercury	52054-12-01 06:58	G	20733727.74	20733727.79	20733727.83	0.1817	0.1637	
Mercury	52055-09-29 07:12	G	20734029.67	20734029.80	20734029.93	0.1717	0.1037	
Moon	52059-06-14 13:55	G	20735383.90	20735384.08	20735384.27	0.1744	0.0332	
Earth	52059-06-14 21:07	G	20735384.20	20735384.38	20735384.57	0.1744	0.0391	*
Mercury	52064-04-22 16:19	G	20737158.06	20737158.18	20737158.29	0.1810	0.0461	
Mercury	52065-02-18 06:43	G	20737459.63	20737459.78	20737459.93	0.1724	0.0685	
Mercury	52073-09-13 01:26	G	20740588.46	20740588.56	20740588.67	0.1803	0.0714	
Venus	52082-10-25 22:48	G	20743918.29	20743918.45	20743918.61	0.1662	0.0596	
Venus	52087-06-06 07:26	G	20745602.64	20745602.81	20745602.98	0.1869	0.0349	
Mercury	52094-06-01 06:43	G	20748154.76	20748154.78	20748154.80	0.1817	0.1775	
Mercury	52095-03-30 07:55	G	20748456.72	20748456.83	20748456.94	0.1717	0.1282	

Mercury	52103-10-23 16:05 G	20751585.06	20751585.17	20751585.28	0.1810	0.0611
Mercury	52104-08-20 07:26 G	20751886.65	20751886.81	20751886.97	0.1723	0.0448
Mercury	52113-03-15 01:41 G	20755015.46	20755015.57	20755015.68	0.1803	0.0553
Mercury	52122-08-05 10:48 G	20758445.92	20758445.95	20758445.99	0.1796	0.1714
Mercury	52134-09-29 08:24 G	20762883.78	20762883.85	20762883.93	0.1717	0.1511
Mercury	52143-04-23 16:05 G	20766012.07	20766012.17	20766012.28	0.1810	0.0766
Mercury	52144-02-19 07:55 G	20766313.67	20766313.83	20766314.00	0.1724	0.0226
Venus	52148-08-23 10:34 G	20767960.77	20767960.94	20767961.11	0.1660	0.0286
Mercury	52152-09-13 01:26 G	20769442.45	20769442.56	20769442.67	0.1803	0.0412
Venus	52153-04-03 11:17 G	20769644.83	20769644.97	20769645.11	0.1873	0.1143
Mercury	52162-02-03 11:02 G	20772872.90	20772872.96	20772873.02	0.1796	0.1546
Earth	52163-12-13 22:05 G	20773551.24	20773551.42	20773551.61	0.1783	0.0451
Moon	52163-12-14 05:31 G	20773551.56	20773551.73	20773551.91	0.1784	0.0866 *
Mercury	52182-10-22 16:05 G	20780439.07	20780439.17	20780439.27	0.1810	0.0912
Mercury	52183-08-20 08:38 G	20780740.70	20780740.86	20780741.03	0.1723	0.0017
Mercury	52192-03-14 01:26 G	20783869.45	20783869.56	20783869.68	0.1803	0.0252
Mercury	52193-01-09 08:10 G	20784170.83	20784170.84	20784170.85	0.1730	0.1722
Mercury	52201-08-05 10:48 G	20787299.88	20787299.95	20787300.02	0.1796	0.1405
Venus	52214-06-21 21:50 G	20792003.24	20792003.41	20792003.58	0.1657	0.0028
Mercury	52222-04-23 16:05 G	20794866.08	20794866.17	20794866.27	0.1810	0.1073
Mercury	52223-02-19 09:22 G	20795167.73	20795167.89	20795168.05	0.1723	0.0251
Mercury	52231-09-14 01:26 G	20798296.45	20798296.56	20798296.68	0.1803	0.0098
Mercury	52232-07-11 08:53 G	20798597.78	20798597.87	20798597.95	0.1730	0.1487
Mercury	52241-02-03 11:02 G	20801726.87	20801726.96	20801727.04	0.1796	0.1246
Mercury	52261-10-22 16:05 G	20809293.08	20809293.17	20809293.25	0.1810	0.1221
Mercury	52262-08-20 09:50 G	20809594.75	20809594.91	20809595.07	0.1724	0.0480
Mercury	52271-03-15 01:26 G	20812723.44	20812723.56	20812723.68	0.1803	0.0056
Mercury	52272-01-10 09:36 G	20813024.79	20813024.90	20813025.01	0.1730	0.1236
Venus	52280-04-18 09:36 G	20816045.73	20816045.90	20816046.07	0.1655	0.0329
Mercury	52280-08-04 11:02 G	20816153.86	20816153.96	20816154.05	0.1796	0.1090

Mercury	52301-04-23 16:05 G	20823720.09	20823720.17	20823720.24	0.1810	0.1374
Mercury	52302-02-19 10:34 G	20824021.79	20824021.94	20824022.09	0.1723	0.0719
Mercury	52310-09-14 01:26 G	20827150.44	20827150.56	20827150.68	0.1803	0.0212
Mercury	52311-07-12 09:50 G	20827451.78	20827451.91	20827452.04	0.1730	0.1030
Venus	52316-11-27 14:24 G	20829417.01	20829417.10	20829417.19	0.1868	0.1588
Mercury	52320-02-04 10:48 G	20830580.85	20830580.95	20830581.05	0.1796	0.0940
Mercury	52340-10-22 16:05 G	20838147.11	20838147.17	20838147.23	0.1810	0.1526
Mercury	52341-08-20 11:17 G	20838448.83	20838448.97	20838449.10	0.1723	0.0952
Earth	52343-06-18 08:24 G	20839115.66	20839115.85	20839116.04	0.1752	0.0244
Moon	52343-06-18 13:26 G	20839115.88	20839116.06	20839116.24	0.1751	0.0133 *
Venus	52346-02-14 21:22 G	20840088.23	20840088.39	20840088.55	0.1653	0.0625
Mercury	52350-03-15 01:26 G	20841577.45	20841577.56	20841577.68	0.1803	0.0372
Mercury	52351-01-10 10:34 G	20841878.80	20841878.94	20841879.09	0.1730	0.0788
Mercury	52359-08-05 10:48 G	20845007.85	20845007.95	20845008.06	0.1796	0.0786
Mercury	52380-04-22 16:05 G	20852574.13	20852574.17	20852574.21	0.1810	0.1679
Mercury	52381-02-18 11:46 G	20852875.87	20852875.99	20852876.11	0.1723	0.1179
Venus	52382-09-24 18:14 G	20853459.10	20853459.26	20853459.42	0.1872	0.0799
Mercury	52389-09-13 01:26 G	20856004.45	20856004.56	20856004.67	0.1803	0.0513
Mercury	52390-07-11 11:17 G	20856305.82	20856305.97	20856306.13	0.1730	0.0545
Mercury	52399-02-03 10:48 G	20859434.84	20859434.95	20859435.06	0.1796	0.0625
Mercury	52408-06-25 20:10 G	20862865.33	20862865.34	20862865.36	0.1789	0.1771
Venus	52411-12-13 08:53 G	20864130.73	20864130.87	20864131.01	0.1651	0.0928
Mercury	52420-08-19 12:29 G	20867302.92	20867303.02	20867303.11	0.1723	0.1417
Mercury	52429-03-14 01:26 G	20870431.45	20870431.56	20870431.67	0.1803	0.0675
Mercury	52430-01-09 11:46 G	20870732.83	20870732.99	20870733.15	0.1730	0.0328
Mercury	52438-08-04 10:48 G	20873861.84	20873861.95	20873862.06	0.1796	0.0486
Venus	52443-12-12 04:19 G	20875817.61	20875817.68	20875817.75	0.1658	0.1498
Moon	52447-12-15 23:46 G	20877282.30	20877282.49	20877282.67	0.1775	0.0537
Earth	52447-12-16 06:58 G	20877282.60	20877282.79	20877282.97	0.1775	0.0479 *
Mercury	52447-12-25 20:10 G	20877292.30	20877292.34	20877292.39	0.1789	0.1616

Venus	52448-07-21 22:05 G	20877501.25	20877501.42	20877501.60	0.1875	0.0053
Mercury	52460-02-18 12:58 G	20881730.00	20881730.04	20881730.09	0.1723	0.1651
Mercury	52468-09-12 01:26 G	20884858.45	20884858.56	20884858.66	0.1803	0.0825
Mercury	52469-07-10 12:29 G	20885159.85	20885160.02	20885160.18	0.1730	0.0093
Venus	52477-10-09 20:53 G	20888173.26	20888173.37	20888173.49	0.1648	0.1209
Mercury	52478-02-02 10:48 G	20888288.84	20888288.95	20888289.06	0.1796	0.0325
Mercury	52487-06-25 20:10 G	20891719.28	20891719.34	20891719.41	0.1789	0.1462
Mercury	52508-03-14 01:26 G	20899285.46	20899285.56	20899285.65	0.1803	0.0973
Mercury	52509-01-09 13:12 G	20899586.89	20899587.05	20899587.21	0.1730	0.0155
Venus	52509-10-09 15:50 G	20899860.05	20899860.16	20899860.28	0.1655	0.1193
Venus	52514-05-20 01:12 G	20901543.39	20901543.55	20901543.71	0.1878	0.0821
Mercury	52517-08-04 10:48 G	20902715.83	20902715.95	20902716.07	0.1796	0.0168
Mercury	52518-06-01 12:29 G	20903016.96	20903017.02	20903017.08	0.1737	0.1606
Mercury	52526-12-25 20:10 G	20906146.26	20906146.34	20906146.42	0.1789	0.1307
Venus	52543-08-08 08:38 G	20912215.79	20912215.86	20912215.93	0.1646	0.1507
Mercury	52547-09-13 01:12 G	20913712.46	20913712.55	20913712.64	0.1803	0.1127
Mercury	52548-07-10 13:41 G	20914013.90	20914014.07	20914014.23	0.1730	0.0367
Mercury	52557-02-02 10:48 G	20917142.83	20917142.95	20917143.06	0.1796	0.0057
Mercury	52557-11-30 13:26 G	20917443.96	20917444.06	20917444.16	0.1737	0.1357
Mercury	52566-06-25 20:10 G	20920573.25	20920573.34	20920573.43	0.1789	0.1157
Venus	52575-08-07 03:36 G	20923902.51	20923902.65	20923902.80	0.1653	0.0886
Venus	52580-03-16 04:34 G	20925585.61	20925585.69	20925585.77	0.1882	0.1643
Mercury	52587-03-14 01:26 G	20928139.48	20928139.56	20928139.64	0.1803	0.1283
Mercury	52588-01-09 14:24 G	20928440.94	20928441.10	20928441.25	0.1730	0.0610
Mercury	52596-08-03 10:48 G	20931569.83	20931569.95	20931570.06	0.1796	0.0143
Mercury	52597-05-31 13:41 G	20931870.95	20931871.07	20931871.19	0.1737	0.1143
Mercury	52605-12-25 20:10 G	20935000.24	20935000.34	20935000.44	0.1789	0.1001
Mercury	52626-09-13 01:12 G	20942566.48	20942566.55	20942566.62	0.1803	0.1422
Earth	52627-06-20 17:02 G	20942847.02	20942847.21	20942847.40	0.1760	0.0218
Moon	52627-06-20 20:38 G	20942847.15	20942847.36	20942847.56	0.1759	0.0089 *

Mercury	52627-07-11 14:53 G	20942867.98	20942868.12	20942868.27	0.1730	0.0849
Mercury	52636-02-03 10:48 G	20945996.83	20945996.95	20945997.06	0.1796	0.0292
Mercury	52636-11-30 14:24 G	20946297.96	20946298.10	20946298.24	0.1737	0.0907
Venus	52641-06-04 15:07 G	20947944.97	20947945.13	20947945.30	0.1651	0.0583
Mercury	52645-06-25 20:10 G	20949427.24	20949427.34	20949427.44	0.1789	0.0855
Mercury	52666-03-14 01:12 G	20956993.50	20956993.55	20956993.61	0.1803	0.1582
Mercury	52667-01-09 15:22 G	20957295.02	20957295.14	20957295.27	0.1730	0.1066
Mercury	52675-08-04 10:34 G	20960423.83	20960423.94	20960424.05	0.1796	0.0425
Mercury	52676-05-31 15:07 G	20960724.98	20960725.13	20960725.28	0.1737	0.0669
Mercury	52684-12-24 20:10 G	20963854.23	20963854.34	20963854.45	0.1789	0.0696
Mercury	52705-09-13 01:12 G	20971420.52	20971420.55	20971420.58	0.1803	0.1727
Mercury	52706-07-11 16:05 G	20971722.06	20971722.17	20971722.28	0.1730	0.1300
Venus	52707-04-03 03:07 G	20971987.46	20971987.63	20971987.80	0.1649	0.0282
Mercury	52715-02-03 10:34 G	20974850.83	20974850.94	20974851.05	0.1796	0.0589
Mercury	52715-12-01 15:36 G	20975151.99	20975152.15	20975152.31	0.1737	0.0448
Mercury	52724-06-25 20:10 G	20978281.23	20978281.34	20978281.45	0.1789	0.0550
Earth	52731-12-19 16:34 G	20981014.01	20981014.19	20981014.37	0.1767	0.0557
Moon	52731-12-19 16:05 G	20981014.02	20981014.17	20981014.33	0.1767	0.0800 *
Mercury	52733-11-16 05:31 G	20981711.69	20981711.73	20981711.77	0.1782	0.1682
Venus	52743-11-10 07:55 G	20985357.70	20985357.83	20985357.97	0.1877	0.1131
Mercury	52746-01-09 16:48 G	20986149.13	20986149.20	20986149.27	0.1730	0.1545
Mercury	52754-08-04 10:34 G	20989277.84	20989277.94	20989278.05	0.1796	0.0743
Mercury	52755-06-01 16:05 G	20989579.01	20989579.17	20989579.33	0.1737	0.0218
Mercury	52763-12-25 20:10 G	20992708.22	20992708.34	20992708.45	0.1789	0.0398
Venus	52773-01-28 14:53 G	20996029.94	20996030.12	20996030.29	0.1647	0.0025
Mercury	52773-05-17 05:31 G	20996138.67	20996138.73	20996138.79	0.1782	0.1522
Mercury	52794-02-02 10:34 G	21003704.84	21003704.94	21003705.04	0.1796	0.0882
Mercury	52794-11-30 16:48 G	21004006.04	21004006.20	21004006.37	0.1737	0.0056
Mercury	52803-06-25 20:10 G	21007135.22	21007135.34	21007135.45	0.1789	0.0251
Mercury	52804-04-21 16:05 G	21007436.17	21007436.17	21007436.18	0.1744	0.1741

Venus	52809-09-06 11:17 G	21009399.80	21009399.97	21009400.15	0.1881	0.0309
Mercury	52812-11-15 05:31 G	21010565.66	21010565.73	21010565.80	0.1782	0.1367
Mercury	52833-08-03 10:34 G	21018131.84	21018131.94	21018132.03	0.1796	0.1035
Mercury	52834-05-31 17:17 G	21018433.06	21018433.22	21018433.38	0.1737	0.0242
Venus	52838-11-26 02:38 G	21020072.44	21020072.61	21020072.78	0.1645	0.0307
Mercury	52842-12-24 19:55 G	21021562.22	21021562.33	21021562.45	0.1789	0.0115
Mercury	52843-10-21 16:48 G	21021863.12	21021863.20	21021863.28	0.1744	0.1509
Mercury	52852-05-16 05:31 G	21024992.64	21024992.73	21024992.81	0.1782	0.1224
Mercury	52873-02-01 10:34 G	21032558.85	21032558.94	21032559.03	0.1796	0.1194
Mercury	52873-11-29 18:00 G	21032860.09	21032860.25	21032860.40	0.1737	0.0481
Venus	52875-07-04 14:53 G	21033441.95	21033442.12	21033442.29	0.1884	0.0508
Mercury	52882-06-24 19:55 G	21035989.22	21035989.33	21035989.45	0.1789	0.0079
Mercury	52883-04-21 17:17 G	21036290.11	21036290.22	21036290.33	0.1744	0.1278
Mercury	52891-11-15 05:31 G	21039419.64	21039419.73	21039419.82	0.1782	0.1064
Venus	52904-09-23 14:53 G	21044114.96	21044115.12	21044115.28	0.1643	0.0581
Moon	52911-06-22 16:05 G	21046577.99	21046578.17	21046578.35	0.1768	0.0481
Earth	52911-06-22 23:17 G	21046578.28	21046578.47	21046578.66	0.1768	0.0313 *
Mercury	52912-08-03 10:19 G	21046985.86	21046985.93	21046986.01	0.1796	0.1329
Mercury	52913-05-31 18:43 G	21047287.13	21047287.28	21047287.42	0.1737	0.0725
Mercury	52921-12-24 20:10 G	21050416.22	21050416.34	21050416.45	0.1789	0.0226
Mercury	52922-10-21 18:00 G	21050717.12	21050717.25	21050717.38	0.1744	0.1042
Mercury	52931-05-17 05:31 G	21053846.63	21053846.73	21053846.83	0.1782	0.0912
Venus	52941-05-01 17:17 G	21057484.10	21057484.22	21057484.34	0.1887	0.1387
Mercury	52952-02-02 10:34 G	21061412.87	21061412.94	21061413.00	0.1796	0.1491
Mercury	52952-11-29 19:12 G	21061714.16	21061714.30	21061714.43	0.1737	0.0944
Mercury	52961-06-24 19:55 G	21064843.22	21064843.33	21064843.45	0.1789	0.0358
Mercury	52962-04-21 18:29 G	21065144.13	21065144.27	21065144.41	0.1744	0.0820
Venus	52970-07-22 02:24 G	21068157.46	21068157.60	21068157.75	0.1641	0.0876
Mercury	52970-11-15 05:17 G	21068273.62	21068273.72	21068273.83	0.1782	0.0773
Mercury	52991-08-03 10:34 G	21075839.89	21075839.94	21075839.98	0.1796	0.1642

Mercury 52992-05-30 19:41 G 21076141.20 21076141.32 21076141.44 0.1737 0.1173
 Mercury 53000-12-24 19:55 G 21079270.22 21079270.33 21079270.44 0.1789 0.0510

54TH MILLENNIUM CE

This is a list of transits visible from Mars in the 54th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	53001-10-21 19:12	G	21079571.14	21079571.30	21079571.45	0.1744	0.0581	
Venus	53002-07-21 21:07	G	21079844.30	21079844.38	21079844.45	0.1647	0.1487	
Mercury	53010-05-17 05:31	G	21082700.62	21082700.73	21082700.84	0.1782	0.0611	
Earth	53015-12-22 03:22	G	21084745.46	21084745.64	21084745.81	0.1759	0.0687	
Moon	53015-12-22 09:50	G	21084745.75	21084745.91	21084746.07	0.1759	0.1052	*
Mercury	53019-10-07 14:53	G	21086131.09	21086131.12	21086131.14	0.1775	0.1733	
Mercury	53031-02-02 10:19	G	21090266.92	21090266.93	21090266.94	0.1796	0.1780	
Mercury	53031-11-30 20:24	G	21090568.26	21090568.35	21090568.44	0.1736	0.1426	
Venus	53036-05-19 14:38	G	21092199.99	21092200.11	21092200.24	0.1639	0.1145	
Mercury	53040-06-24 19:55	G	21093697.22	21093697.33	21093697.44	0.1789	0.0663	
Mercury	53041-04-21 19:41	G	21093998.16	21093998.32	21093998.48	0.1744	0.0357	
Mercury	53049-11-15 05:31	G	21097127.61	21097127.73	21097127.84	0.1782	0.0460	
Mercury	53059-04-07 14:53	G	21100558.07	21100558.12	21100558.17	0.1775	0.1572	
Venus	53068-05-18 08:53	G	21103886.75	21103886.87	21103886.99	0.1645	0.1195	
Mercury	53071-05-31 20:53	G	21104995.31	21104995.37	21104995.42	0.1737	0.1632	
Mercury	53079-12-24 19:55	G	21108124.23	21108124.33	21108124.43	0.1789	0.0811	
Mercury	53080-10-20 20:24	G	21108425.18	21108425.35	21108425.51	0.1744	0.0121	

Mercury	53089-05-16 05:17 G	21111554.61	21111554.72	21111554.84	0.1782	0.0317
Mercury	53098-10-06 14:53 G	21114985.05	21114985.12	21114985.19	0.1775	0.1417
Venus	53102-03-18 02:53 G	21116242.53	21116242.62	21116242.70	0.1637	0.1422
Venus	53104-12-25 20:53 G	21117256.26	21117256.37	21117256.48	0.1883	0.1417
Mercury	53119-06-25 19:55 G	21122551.23	21122551.33	21122551.43	0.1789	0.0959
Mercury	53120-04-21 20:53 G	21122852.21	21122852.37	21122852.53	0.1744	0.0110
Mercury	53128-11-15 05:17 G	21125981.61	21125981.72	21125981.84	0.1782	0.0170
Mercury	53129-09-11 20:10 G	21126282.30	21126282.34	21126282.39	0.1751	0.1664
Venus	53134-03-16 20:53 G	21127929.23	21127929.37	21127929.52	0.1643	0.0903
Mercury	53138-04-07 14:53 G	21129412.04	21129412.12	21129412.20	0.1775	0.1275
Mercury	53158-12-24 19:55 G	21136978.24	21136978.33	21136978.42	0.1789	0.1117
Mercury	53159-10-21 21:36 G	21137279.24	21137279.40	21137279.56	0.1743	0.0346
Mercury	53168-05-16 05:17 G	21140408.61	21140408.72	21140408.84	0.1782	0.0046
Mercury	53169-03-12 20:53 G	21140709.28	21140709.37	21140709.46	0.1751	0.1426
Venus	53170-10-23 00:29 G	21141298.36	21141298.52	21141298.69	0.1886	0.0603
Mercury	53177-10-06 14:53 G	21143839.03	21143839.12	21143839.21	0.1775	0.1119
Earth	53195-06-25 04:19 G	21150309.50	21150309.68	21150309.87	0.1776	0.0466
Moon	53195-06-25 09:50 G	21150309.73	21150309.91	21150310.09	0.1776	0.0361 *
Mercury	53198-06-24 19:55 G	21151405.24	21151405.33	21151405.41	0.1789	0.1259
Mercury	53199-04-21 22:05 G	21151706.26	21151706.42	21151706.57	0.1744	0.0573
Venus	53200-01-12 08:53 G	21151971.71	21151971.87	21151972.03	0.1641	0.0618
Mercury	53207-11-15 05:17 G	21154835.60	21154835.72	21154835.84	0.1782	0.0142
Mercury	53208-09-10 21:36 G	21155136.28	21155136.40	21155136.52	0.1750	0.1180
Mercury	53217-04-06 14:53 G	21158266.02	21158266.12	21158266.22	0.1776	0.0956
Venus	53236-08-19 03:22 G	21165340.47	21165340.64	21165340.81	0.1889	0.0251
Mercury	53237-12-23 19:55 G	21165832.26	21165832.33	21165832.40	0.1789	0.1411
Mercury	53238-10-20 22:48 G	21166133.30	21166133.45	21166133.59	0.1743	0.0812
Mercury	53247-05-16 05:17 G	21169262.61	21169262.72	21169262.84	0.1782	0.0302
Mercury	53248-03-11 22:05 G	21169563.28	21169563.42	21169563.55	0.1751	0.0974
Mercury	53256-10-05 14:38 G	21172693.01	21172693.11	21172693.22	0.1775	0.0824

Venus	53265-11-08 20:53 G	21176014.20	21176014.37	21176014.54	0.1639	0.0332
Mercury	53277-06-23 19:55 G	21180259.27	21180259.33	21180259.38	0.1789	0.1566
Mercury	53278-04-20 23:17 G	21180560.34	21180560.47	21180560.60	0.1743	0.1038
Mercury	53286-11-14 05:17 G	21183689.61	21183689.72	21183689.83	0.1782	0.0448
Mercury	53287-09-10 22:48 G	21183990.30	21183990.45	21183990.59	0.1751	0.0726
Mercury	53296-04-05 14:53 G	21187120.01	21187120.12	21187120.23	0.1775	0.0661
Moon	53299-12-23 08:24 G	21188476.68	21188476.85	21188477.03	0.1750	0.0731
Earth	53299-12-23 15:36 G	21188476.99	21188477.15	21188477.31	0.1751	0.0889 *
Venus	53302-06-17 06:43 G	21189382.64	21189382.78	21189382.92	0.1892	0.1089
Mercury	53305-08-28 00:14 G	21190550.51	21190550.51	21190550.52	0.1768	0.1759
Mercury	53316-12-23 19:41 G	21194686.29	21194686.32	21194686.36	0.1789	0.1710
Mercury	53317-10-21 00:00 G	21194987.39	21194987.50	21194987.61	0.1744	0.1282
Mercury	53326-05-16 05:17 G	21198116.61	21198116.72	21198116.83	0.1782	0.0594
Mercury	53327-03-12 23:17 G	21198417.32	21198417.47	21198417.63	0.1750	0.0492
Venus	53331-09-07 09:22 G	21200056.71	21200056.89	21200057.06	0.1638	0.0067
Mercury	53335-10-06 14:53 G	21201547.01	21201547.12	21201547.23	0.1775	0.0507
Mercury	53345-02-26 00:29 G	21204977.47	21204977.52	21204977.56	0.1769	0.1604
Mercury	53357-04-21 00:29 G	21209414.44	21209414.52	21209414.60	0.1743	0.1506
Mercury	53365-11-14 05:17 G	21212543.61	21212543.72	21212543.83	0.1782	0.0748
Mercury	53366-09-10 23:46 G	21212844.33	21212844.49	21212844.65	0.1751	0.0275
Mercury	53375-04-06 14:53 G	21215974.00	21215974.12	21215974.23	0.1775	0.0368
Mercury	53384-08-27 00:29 G	21219404.45	21219404.52	21219404.58	0.1769	0.1453
Mercury	53396-10-20 01:12 G	21223841.55	21223841.55	21223841.55	0.1743	0.1742
Venus	53397-07-04 21:07 G	21224099.21	21224099.38	21224099.55	0.1636	0.0226
Mercury	53405-05-16 05:17 G	21226970.62	21226970.72	21226970.82	0.1782	0.0900
Mercury	53406-03-13 00:29 G	21227271.36	21227271.52	21227271.68	0.1750	0.0034
Mercury	53414-10-06 14:53 G	21230401.00	21230401.12	21230401.23	0.1775	0.0213
Mercury	53424-02-27 00:29 G	21233831.44	21233831.52	21233831.59	0.1769	0.1299
Mercury	53444-11-14 05:17 G	21241397.63	21241397.72	21241397.81	0.1783	0.1046
Mercury	53445-09-11 01:12 G	21241698.39	21241698.55	21241698.71	0.1750	0.0211

Mercury	53454-04-06 14:53 G	21244828.00	21244828.12	21244828.24	0.1776	0.0047
Mercury	53455-02-01 00:29 G	21245128.45	21245128.52	21245128.59	0.1758	0.1582
Venus	53463-05-03 09:36 G	21248141.74	21248141.90	21248142.07	0.1634	0.0482
Mercury	53463-08-28 00:14 G	21248258.43	21248258.51	21248258.60	0.1769	0.1152
Venus	53466-02-09 10:34 G	21249154.88	21249154.94	21249155.01	0.1888	0.1745
Earth	53479-06-27 08:53 G	21254040.69	21254040.87	21254041.05	0.1785	0.0666
Moon	53479-06-27 11:17 G	21254040.78	21254040.97	21254041.16	0.1785	0.0738 *
Mercury	53484-05-15 05:17 G	21255824.63	21255824.72	21255824.81	0.1782	0.1202
Mercury	53485-03-12 01:26 G	21256125.41	21256125.56	21256125.72	0.1751	0.0425
Mercury	53493-10-05 14:38 G	21259255.00	21259255.11	21259255.23	0.1775	0.0101
Mercury	53494-08-02 01:12 G	21259555.44	21259555.55	21259555.65	0.1758	0.1336
Mercury	53503-02-27 00:29 G	21262685.42	21262685.52	21262685.61	0.1769	0.0992
Mercury	53523-11-15 05:17 G	21270251.64	21270251.72	21270251.79	0.1782	0.1348
Mercury	53524-09-11 02:10 G	21270552.44	21270552.59	21270552.75	0.1750	0.0671
Venus	53529-02-28 21:50 G	21272184.26	21272184.41	21272184.57	0.1632	0.0753
Venus	53531-12-08 13:12 G	21273196.89	21273197.05	21273197.20	0.1891	0.0876
Mercury	53533-04-06 14:53 G	21273682.00	21273682.12	21273682.23	0.1776	0.0251
Mercury	53534-02-01 01:26 G	21273982.44	21273982.56	21273982.69	0.1758	0.1123
Mercury	53542-08-28 00:14 G	21277112.41	21277112.51	21277112.62	0.1768	0.0847
Venus	53561-02-27 15:36 G	21283871.10	21283871.15	21283871.20	0.1638	0.1551
Mercury	53563-05-16 05:17 G	21284678.66	21284678.72	21284678.78	0.1783	0.1497
Mercury	53564-03-12 02:53 G	21284979.48	21284979.62	21284979.76	0.1750	0.0904
Mercury	53572-10-05 14:53 G	21288109.00	21288109.12	21288109.23	0.1775	0.0403
Mercury	53573-08-02 02:10 G	21288409.45	21288409.59	21288409.73	0.1758	0.0887
Mercury	53582-02-26 00:29 G	21291539.41	21291539.52	21291539.62	0.1769	0.0693
Moon	53583-12-27 05:02 G	21292208.57	21292208.71	21292208.84	0.1743	0.1153
Earth	53583-12-27 06:14 G	21292208.62	21292208.76	21292208.89	0.1743	0.1184 *
Venus	53594-12-27 10:19 G	21296226.80	21296226.93	21296227.07	0.1631	0.1014
Venus	53597-10-04 16:34 G	21297239.02	21297239.19	21297239.37	0.1894	0.0049
Mercury	53602-11-14 05:17 G	21299105.68	21299105.72	21299105.76	0.1782	0.1649

Mercury	53603-09-11 03:22 G	21299406.52	21299406.64	21299406.77	0.1750	0.1126
Mercury	53612-04-05 14:53 G	21302536.00	21302536.12	21302536.23	0.1775	0.0549
Mercury	53613-01-31 02:53 G	21302836.47	21302836.62	21302836.78	0.1757	0.0635
Mercury	53621-08-27 00:29 G	21305966.40	21305966.52	21305966.63	0.1769	0.0541
Venus	53626-12-26 03:50 G	21307913.55	21307913.66	21307913.76	0.1636	0.1276
Mercury	53631-01-17 09:50 G	21309396.87	21309396.91	21309396.96	0.1762	0.1620
Mercury	53643-03-12 04:05 G	21313833.57	21313833.67	21313833.77	0.1750	0.1369
Mercury	53651-10-05 14:53 G	21316963.01	21316963.12	21316963.22	0.1775	0.0699
Mercury	53652-08-01 03:22 G	21317263.48	21317263.64	21317263.80	0.1757	0.0427
Venus	53660-10-23 22:48 G	21320269.35	21320269.45	21320269.56	0.1629	0.1275
Mercury	53661-02-25 00:14 G	21320393.40	21320393.51	21320393.63	0.1769	0.0395
Venus	53663-08-01 19:12 G	21321281.14	21321281.30	21321281.45	0.1896	0.0839
Mercury	53670-07-18 09:50 G	21323823.85	21323823.91	21323823.97	0.1762	0.1476
Mercury	53682-09-10 04:48 G	21328260.64	21328260.70	21328260.76	0.1750	0.1608
Mercury	53691-04-05 14:53 G	21331390.02	21331390.12	21331390.22	0.1776	0.0857
Mercury	53692-01-31 04:05 G	21331690.51	21331690.67	21331690.83	0.1757	0.0192
Venus	53692-10-22 16:05 G	21331956.03	21331956.17	21331956.31	0.1635	0.0998
Mercury	53700-08-27 00:29 G	21334820.40	21334820.52	21334820.63	0.1769	0.0250
Mercury	53710-01-17 09:50 G	21338250.84	21338250.91	21338250.99	0.1762	0.1316
Venus	53726-08-22 11:31 G	21344311.92	21344311.98	21344312.03	0.1628	0.1536
Venus	53729-05-29 22:05 G	21345323.35	21345323.42	21345323.50	0.1899	0.1704
Mercury	53730-10-05 14:38 G	21345817.02	21345817.11	21345817.21	0.1775	0.0993
Mercury	53731-08-02 04:48 G	21346117.54	21346117.70	21346117.86	0.1757	0.0064
Mercury	53740-02-26 00:29 G	21349247.40	21349247.52	21349247.64	0.1769	0.0083
Mercury	53740-12-22 04:05 G	21349547.64	21349547.67	21349547.69	0.1764	0.1739
Mercury	53749-07-18 09:50 G	21352677.83	21352677.91	21352678.00	0.1762	0.1167
Venus	53758-08-21 04:34 G	21355998.53	21355998.69	21355998.84	0.1633	0.0733
Moon	53763-06-29 04:34 G	21357771.59	21357771.69	21357771.80	0.1794	0.1473
Earth	53763-06-29 12:00 G	21357771.83	21357772.00	21357772.16	0.1794	0.0954
Mercury	53770-04-05 14:53 G	21360244.03	21360244.12	21360244.21	0.1776	0.1154

Mercury	53771-01-31 05:17 G	21360544.56	21360544.72	21360544.88	0.1757	0.0280
Mercury	53779-08-27 00:14 G	21363674.40	21363674.51	21363674.63	0.1769	0.0081
Mercury	53780-06-22 04:34 G	21363974.61	21363974.69	21363974.77	0.1765	0.1512
Moon	53788-12-25 08:53 G	21367082.78	21367082.87	21367082.95	0.1731	0.1557
Earth	53788-12-25 09:50 G	21367082.85	21367082.91	21367082.97	0.1731	0.1616 *
Mercury	53789-01-16 09:50 G	21367104.82	21367104.91	21367105.01	0.1762	0.1020
Mercury	53809-10-05 14:53 G	21374671.04	21374671.12	21374671.20	0.1776	0.1304
Mercury	53810-08-02 05:46 G	21374971.59	21374971.74	21374971.90	0.1757	0.0511
Mercury	53819-02-26 00:29 G	21378101.40	21378101.52	21378101.63	0.1769	0.0222
Mercury	53819-12-23 05:17 G	21378401.61	21378401.72	21378401.83	0.1764	0.1277
Venus	53824-06-18 16:34 G	21380041.02	21380041.19	21380041.35	0.1631	0.0454
Mercury	53828-07-18 09:50 G	21381531.81	21381531.91	21381532.02	0.1762	0.0866
Mercury	53849-04-05 14:38 G	21389098.05	21389098.11	21389098.18	0.1776	0.1446
Mercury	53850-01-31 06:29 G	21389398.63	21389398.77	21389398.92	0.1757	0.0766
Mercury	53858-08-27 00:29 G	21392528.40	21392528.52	21392528.63	0.1769	0.0372
Mercury	53859-06-23 05:46 G	21392828.61	21392828.74	21392828.87	0.1764	0.1053
Earth	53867-12-29 22:05 G	21395940.33	21395940.42	21395940.50	0.1736	0.1530
Moon	53867-12-30 04:34 G	21395940.61	21395940.69	21395940.77	0.1736	0.1569
Mercury	53868-01-17 10:05 G	21395958.81	21395958.92	21395959.03	0.1762	0.0709
Mercury	53888-10-04 14:53 G	21403525.07	21403525.12	21403525.16	0.1776	0.1597
Mercury	53889-08-01 06:58 G	21403825.65	21403825.79	21403825.92	0.1757	0.0969
Venus	53890-04-16 05:17 G	21404083.55	21404083.72	21404083.89	0.1630	0.0200
Venus	53893-01-22 02:38 G	21405095.47	21405095.61	21405095.74	0.1896	0.1189
Mercury	53898-02-25 00:14 G	21406955.40	21406955.51	21406955.63	0.1769	0.0519
Mercury	53898-12-22 06:14 G	21407255.62	21407255.76	21407255.91	0.1765	0.0812
Mercury	53907-07-19 09:50 G	21410385.80	21410385.91	21410386.03	0.1762	0.0569
Mercury	53916-12-08 19:41 G	21413816.28	21413816.32	21413816.36	0.1756	0.1628
Mercury	53928-04-05 14:53 G	21417952.10	21417952.12	21417952.13	0.1776	0.1752
Mercury	53929-01-31 07:41 G	21418252.70	21418252.82	21418252.93	0.1757	0.1213
Mercury	53937-08-27 00:14 G	21421382.41	21421382.51	21421382.62	0.1769	0.0667

Mercury	53938-06-23 06:58 G	21421682.63	21421682.79	21421682.94	0.1764	0.0586
Mercury	53947-01-17 10:05 G	21424812.80	21424812.92	21424813.03	0.1762	0.0409
Venus	53956-02-12 17:31 G	21428126.05	21428126.23	21428126.40	0.1628	0.0072
Mercury	53956-06-08 19:26 G	21428243.25	21428243.31	21428243.37	0.1755	0.1489
Venus	53958-11-20 04:48 G	21429137.53	21429137.70	21429137.88	0.1898	0.0293
Mercury	53968-08-01 08:24 G	21432679.76	21432679.85	21432679.94	0.1757	0.1460
Mercury	53977-02-25 00:29 G	21435809.41	21435809.52	21435809.62	0.1769	0.0821
Mercury	53977-12-22 07:26 G	21436109.65	21436109.81	21436109.97	0.1764	0.0352
Mercury	53986-07-18 10:05 G	21439239.80	21439239.92	21439240.03	0.1762	0.0268
Mercury	53995-12-08 19:41 G	21442670.24	21442670.32	21442670.39	0.1756	0.1330

55TH MILLENNIUM CE

This is a list of transits visible from Mars in the 55th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	54008-01-31 08:38 G		21447106.82	21447106.86	21447106.91	0.1757	0.1672	
Mercury	54016-08-26 00:14 G		21450236.41	21450236.51	21450236.61	0.1769	0.0958	
Mercury	54017-06-22 07:55 G		21450536.67	21450536.83	21450537.00	0.1765	0.0130	
Venus	54021-12-10 06:14 G		21452168.59	21452168.76	21452168.93	0.1627	0.0327	
Venus	54024-09-16 07:55 G		21453179.66	21453179.83	21453180.00	0.1900	0.0571	
Mercury	54026-01-16 10:05 G		21453666.80	21453666.92	21453667.03	0.1762	0.0120	
Mercury	54035-06-08 19:41 G		21457097.23	21457097.32	21457097.40	0.1756	0.1175	
Earth	54047-07-01 13:12 G		21461502.92	21461503.05	21461503.18	0.1802	0.1349	
Moon	54047-07-01 19:12 G		21461503.19	21461503.30	21461503.40	0.1802	0.1453	

Mercury	54056-02-25 00:14 G	21464663.42	21464663.51	21464663.61	0.1769	0.1114
Mercury	54056-12-21 08:38 G	21464963.70	21464963.86	21464964.02	0.1764	0.0112
Mercury	54065-07-17 10:05 G	21468093.80	21468093.92	21468094.04	0.1762	0.0057
Mercury	54066-05-13 07:55 G	21468393.79	21468393.83	21468393.87	0.1772	0.1699
Moon	54072-12-27 21:50 G	21470814.28	21470814.41	21470814.54	0.1724	0.1176
Earth	54072-12-28 04:05 G	21470814.53	21470814.67	21470814.81	0.1724	0.1144 *
Mercury	54074-12-07 19:26 G	21471524.22	21471524.31	21471524.41	0.1756	0.1036
Venus	54087-10-07 18:43 G	21476211.12	21476211.28	21476211.44	0.1625	0.0581
Venus	54090-07-14 10:05 G	21477221.81	21477221.92	21477222.03	0.1902	0.1477
Mercury	54095-08-26 00:29 G	21479090.44	21479090.52	21479090.60	0.1769	0.1264
Mercury	54096-06-21 09:07 G	21479390.72	21479390.88	21479391.04	0.1764	0.0338
Mercury	54105-01-16 10:05 G	21482520.80	21482520.92	21482521.03	0.1762	0.0195
Mercury	54105-11-12 08:38 G	21482820.77	21482820.86	21482820.95	0.1771	0.1450
Mercury	54114-06-08 19:41 G	21485951.21	21485951.32	21485951.42	0.1756	0.0881
Mercury	54135-02-25 00:14 G	21493517.44	21493517.51	21493517.58	0.1769	0.1405
Mercury	54135-12-22 09:50 G	21493817.76	21493817.91	21493818.06	0.1764	0.0585
Mercury	54144-07-17 10:05 G	21496947.80	21496947.92	21496948.03	0.1762	0.0339
Mercury	54145-05-13 09:07 G	21497247.77	21497247.88	21497248.00	0.1771	0.1223
Moon	54152-01-01 08:38 G	21499671.77	21499671.86	21499671.95	0.1728	0.1527
Venus	54153-08-05 07:12 G	21500253.66	21500253.80	21500253.95	0.1624	0.0844
Mercury	54153-12-07 19:41 G	21500378.21	21500378.32	21500378.42	0.1756	0.0726
Mercury	54174-08-26 00:14 G	21507944.46	21507944.51	21507944.57	0.1769	0.1552
Mercury	54175-06-22 10:19 G	21508244.79	21508244.93	21508245.07	0.1764	0.0801
Mercury	54184-01-16 10:05 G	21511374.80	21511374.92	21511375.03	0.1762	0.0490
Mercury	54184-11-11 09:36 G	21511674.77	21511674.90	21511675.03	0.1772	0.1006
Venus	54185-08-04 00:00 G	21511940.41	21511940.50	21511940.58	0.1629	0.1407
Mercury	54193-06-07 19:26 G	21514805.20	21514805.31	21514805.42	0.1756	0.0589
Mercury	54202-10-30 05:17 G	21518235.68	21518235.72	21518235.75	0.1749	0.1638
Mercury	54214-02-25 00:29 G	21522371.49	21522371.52	21522371.54	0.1769	0.1708
Mercury	54214-12-22 10:48 G	21522671.82	21522671.95	21522672.09	0.1764	0.1035

Venus	54219-06-03 19:41 G	21524296.20	21524296.32	21524296.45	0.1623	0.1101
Mercury	54223-07-18 10:05 G	21525801.81	21525801.92	21525802.03	0.1762	0.0636
Mercury	54224-05-13 10:19 G	21526101.78	21526101.93	21526102.07	0.1771	0.0770
Mercury	54232-12-07 19:41 G	21529232.20	21529232.32	21529232.43	0.1756	0.0432
Mercury	54242-04-30 05:02 G	21532662.65	21532662.71	21532662.77	0.1749	0.1490
Venus	54251-06-02 12:00 G	21535982.88	21535983.00	21535983.13	0.1627	0.1133
Venus	54254-03-09 14:53 G	21536994.00	21536994.12	21536994.23	0.1900	0.1440
Mercury	54254-06-22 11:31 G	21537098.87	21537098.98	21537099.09	0.1764	0.1272
Mercury	54263-01-16 10:05 G	21540228.81	21540228.92	21540229.02	0.1762	0.0784
Mercury	54263-11-12 10:48 G	21540528.80	21540528.95	21540529.11	0.1771	0.0531
Mercury	54272-06-07 19:41 G	21543659.20	21543659.32	21543659.43	0.1756	0.0283
Mercury	54281-10-29 05:02 G	21547089.64	21547089.71	21547089.79	0.1749	0.1344
Venus	54285-03-31 08:24 G	21548338.75	21548338.85	21548338.94	0.1622	0.1362
Mercury	54293-12-21 12:00 G	21551525.92	21551526.00	21551526.09	0.1764	0.1498
Mercury	54302-07-18 09:50 G	21554655.82	21554655.91	21554656.01	0.1762	0.0932
Mercury	54303-05-14 11:17 G	21554955.81	21554955.97	21554956.13	0.1772	0.0322
Mercury	54311-12-08 19:26 G	21558086.19	21558086.31	21558086.43	0.1756	0.0147
Venus	54317-03-31 00:43 G	21560025.39	21560025.53	21560025.68	0.1626	0.0879
Venus	54320-01-05 17:02 G	21561036.05	21561036.21	21561036.38	0.1902	0.0547
Mercury	54321-04-30 05:17 G	21561516.63	21561516.72	21561516.80	0.1749	0.1186
Mercury	54333-06-22 12:29 G	21565952.99	21565953.02	21565953.06	0.1764	0.1723
Mercury	54342-01-16 10:05 G	21569082.82	21569082.92	21569083.01	0.1762	0.1078
Mercury	54342-11-12 12:00 G	21569382.84	21569383.00	21569383.16	0.1771	0.0075
Venus	54351-01-27 20:53 G	21572381.36	21572381.37	21572381.38	0.1620	0.1611
Mercury	54351-06-08 19:26 G	21572513.20	21572513.31	21572513.43	0.1756	0.0068
Earth	54356-12-31 22:19 G	21574546.25	21574546.43	21574546.60	0.1717	0.0680
Moon	54357-01-01 04:19 G	21574546.50	21574546.68	21574546.86	0.1718	0.0319 *
Mercury	54360-10-29 05:02 G	21575943.62	21575943.71	21575943.81	0.1749	0.1045
Mercury	54381-07-17 09:50 G	21583509.83	21583509.91	21583510.00	0.1762	0.1222
Mercury	54382-05-13 12:29 G	21583809.86	21583810.02	21583810.18	0.1771	0.0149

Venus	54383-01-26 12:58 G	21584067.88	21584068.04	21584068.20	0.1624	0.0612
Venus	54385-11-01 19:12 G	21585078.13	21585078.30	21585078.47	0.1904	0.0380
Mercury	54390-12-07 19:41 G	21586940.20	21586940.32	21586940.43	0.1756	0.0174
Mercury	54391-10-03 11:46 G	21587239.94	21587239.99	21587240.05	0.1779	0.1656
Mercury	54400-04-29 05:17 G	21590370.61	21590370.72	21590370.82	0.1749	0.0893
Mercury	54421-01-15 09:50 G	21597936.84	21597936.91	21597936.99	0.1762	0.1373
Mercury	54421-11-11 12:58 G	21598236.88	21598237.04	21598237.20	0.1771	0.0372
Mercury	54430-06-07 19:26 G	21601367.20	21601367.31	21601367.43	0.1756	0.0305
Mercury	54431-04-03 12:29 G	21601666.92	21601667.02	21601667.11	0.1779	0.1415
Mercury	54439-10-29 05:17 G	21604797.61	21604797.72	21604797.82	0.1749	0.0743
Venus	54448-11-23 01:55 G	21608110.41	21608110.58	21608110.74	0.1623	0.0357
Venus	54451-08-29 21:50 G	21609120.28	21609120.41	21609120.54	0.1906	0.1272
Mercury	54460-07-16 09:50 G	21612363.86	21612363.91	21612363.97	0.1762	0.1514
Mercury	54461-05-12 13:41 G	21612663.91	21612664.07	21612664.22	0.1771	0.0610
Mercury	54469-12-06 19:26 G	21615794.20	21615794.31	21615794.43	0.1756	0.0462
Mercury	54470-10-02 12:43 G	21616093.92	21616094.03	21616094.15	0.1779	0.1209
Mercury	54479-04-29 05:02 G	21619224.60	21619224.71	21619224.83	0.1749	0.0601
Mercury	54488-09-18 14:53 G	21622655.08	21622655.12	21622655.15	0.1743	0.1645
Mercury	54500-01-15 09:50 G	21626790.88	21626790.91	21626790.95	0.1762	0.1663
Mercury	54500-11-11 14:10 G	21627090.95	21627091.09	21627091.23	0.1771	0.0842
Mercury	54509-06-07 19:26 G	21630221.20	21630221.31	21630221.43	0.1756	0.0609
Mercury	54510-04-03 13:12 G	21630520.92	21630521.05	21630521.19	0.1779	0.0984
Venus	54514-09-21 14:24 G	21632152.93	21632153.10	21632153.28	0.1622	0.0102
Mercury	54518-10-29 05:02 G	21633651.60	21633651.71	21633651.83	0.1749	0.0457
Mercury	54528-03-20 14:53 G	21637082.06	21637082.12	21637082.18	0.1743	0.1487
Mercury	54540-05-12 14:38 G	21641517.98	21641518.11	21641518.23	0.1771	0.1054
Mercury	54548-12-06 19:26 G	21644648.20	21644648.31	21644648.42	0.1756	0.0743
Mercury	54549-10-02 14:10 G	21644947.94	21644948.09	21644948.23	0.1778	0.0730
Mercury	54558-04-29 05:17 G	21648078.60	21648078.72	21648078.84	0.1749	0.0295
Mercury	54567-09-19 14:53 G	21651509.04	21651509.12	21651509.19	0.1742	0.1344

Mercury	54579-11-11 15:22 G	21655945.03	21655945.14	21655945.24	0.1771	0.1299
Venus	54580-07-19 02:53 G	21656195.45	21656195.62	21656195.79	0.1621	0.0165
Mercury	54588-06-06 19:26 G	21659075.21	21659075.31	21659075.41	0.1756	0.0898
Mercury	54589-04-02 14:24 G	21659374.94	21659375.10	21659375.25	0.1778	0.0535
Mercury	54597-10-28 05:02 G	21662505.59	21662505.71	21662505.83	0.1749	0.0164
Mercury	54607-03-21 14:53 G	21665936.03	21665936.12	21665936.20	0.1743	0.1196
Venus	54615-04-25 02:24 G	21668892.52	21668892.60	21668892.68	0.1904	0.1664
Mercury	54619-05-13 15:50 G	21670372.08	21670372.16	21670372.24	0.1771	0.1521
Mercury	54627-12-07 19:26 G	21673502.22	21673502.31	21673502.41	0.1756	0.1047
Mercury	54628-10-02 15:07 G	21673801.97	21673802.13	21673802.28	0.1778	0.0295
Mercury	54637-04-29 05:17 G	21676932.60	21676932.72	21676932.84	0.1749	0.0055
Earth	54641-01-03 16:48 G	21678278.01	21678278.20	21678278.39	0.1711	0.0205
Moon	54641-01-03 18:14 G	21678278.06	21678278.26	21678278.46	0.1711	0.0068 *
Venus	54646-05-17 15:36 G	21680237.98	21680238.15	21680238.32	0.1620	0.0416
Mercury	54646-09-19 14:53 G	21680363.02	21680363.12	21680363.21	0.1742	0.1048
Mercury	54658-11-11 16:19 G	21684799.16	21684799.18	21684799.20	0.1771	0.1750
Mercury	54667-06-07 19:26 G	21687929.22	21687929.31	21687929.40	0.1756	0.1181
Mercury	54668-04-02 15:36 G	21688228.99	21688229.15	21688229.31	0.1778	0.0058
Mercury	54676-10-28 05:17 G	21691359.60	21691359.72	21691359.83	0.1749	0.0153
Venus	54681-02-19 04:34 G	21692934.53	21692934.69	21692934.85	0.1906	0.0743
Mercury	54686-03-20 14:53 G	21694790.02	21694790.12	21694790.22	0.1743	0.0896
Moon	54694-07-08 23:02 G	21697822.32	21697822.46	21697822.60	0.1815	0.1325
Earth	54694-07-09 06:00 G	21697822.66	21697822.75	21697822.84	0.1814	0.1603
Mercury	54706-12-07 19:26 G	21702356.24	21702356.31	21702356.39	0.1756	0.1333
Mercury	54707-10-03 15:50 G	21702656.00	21702656.16	21702656.32	0.1778	0.0159
Venus	54712-03-15 04:05 G	21704280.51	21704280.67	21704280.83	0.1619	0.0676
Mercury	54716-04-29 05:02 G	21705786.60	21705786.71	21705786.83	0.1749	0.0288
Mercury	54717-02-22 15:22 G	21706086.08	21706086.14	21706086.20	0.1786	0.1653
Mercury	54725-09-19 14:53 G	21709217.01	21709217.12	21709217.22	0.1743	0.0755
Venus	54744-03-13 20:24 G	21715967.30	21715967.35	21715967.39	0.1622	0.1547

Mercury	54746-06-07 19:26 G	21716783.25	21716783.31	21716783.37	0.1756	0.1479
Venus	54746-12-18 06:29 G	21716976.60	21716976.77	21716976.95	0.1907	0.0180
Mercury	54747-04-03 16:34 G	21717083.03	21717083.19	21717083.35	0.1778	0.0385
Mercury	54755-10-29 05:02 G	21720213.60	21720213.71	21720213.83	0.1749	0.0436
Mercury	54756-08-23 15:50 G	21720513.07	21720513.16	21720513.25	0.1786	0.1432
Mercury	54765-03-20 14:53 G	21723644.01	21723644.12	21723644.23	0.1743	0.0601
Mercury	54774-08-11 00:29 G	21727074.48	21727074.52	21727074.55	0.1736	0.1645
Venus	54778-01-10 16:48 G	21728323.06	21728323.20	21728323.34	0.1618	0.0924
Mercury	54785-12-06 19:26 G	21731210.27	21731210.31	21731210.35	0.1756	0.1617
Mercury	54786-10-02 17:17 G	21731510.07	21731510.22	21731510.37	0.1778	0.0636
Mercury	54795-04-29 05:17 G	21734640.60	21734640.72	21734640.83	0.1749	0.0587
Mercury	54796-02-22 16:19 G	21734940.07	21734940.18	21734940.30	0.1786	0.1210
Mercury	54804-09-18 14:53 G	21738071.00	21738071.12	21738071.23	0.1742	0.0461
Venus	54810-01-09 08:38 G	21740009.76	21740009.86	21740009.97	0.1621	0.1283
Venus	54812-10-14 08:24 G	21741018.71	21741018.85	21741018.99	0.1909	0.1127
Mercury	54814-02-09 00:29 G	21741501.46	21741501.52	21741501.58	0.1736	0.1487
Mercury	54826-04-02 17:31 G	21745937.09	21745937.23	21745937.37	0.1778	0.0832
Mercury	54834-10-28 05:02 G	21749067.60	21749067.71	21749067.82	0.1749	0.0718
Mercury	54835-08-23 17:02 G	21749367.07	21749367.21	21749367.34	0.1786	0.0973
Venus	54843-11-08 05:17 G	21752365.61	21752365.72	21752365.84	0.1617	0.1181
Mercury	54844-03-19 14:53 G	21752498.00	21752498.12	21752498.23	0.1743	0.0312
Mercury	54853-08-10 00:29 G	21755928.45	21755928.52	21755928.60	0.1736	0.1336
Mercury	54865-10-01 18:14 G	21760364.13	21760364.26	21760364.39	0.1778	0.1076
Mercury	54874-04-28 05:02 G	21763494.61	21763494.71	21763494.82	0.1749	0.0872
Mercury	54875-02-21 17:17 G	21763794.08	21763794.22	21763794.37	0.1786	0.0757
Venus	54875-11-06 21:36 G	21764052.26	21764052.40	21764052.53	0.1620	0.1033
Mercury	54883-09-18 14:53 G	21766925.00	21766925.12	21766925.24	0.1742	0.0168
Mercury	54893-02-08 00:29 G	21770355.43	21770355.52	21770355.60	0.1736	0.1197
Mercury	54905-04-02 18:43 G	21774791.18	21774791.28	21774791.39	0.1778	0.1313
Venus	54909-09-05 18:14 G	21776408.18	21776408.26	21776408.34	0.1616	0.1420

Mercury	54913-10-28 05:02 G	21777921.62	21777921.71	21777921.81	0.1749	0.1021
Mercury	54914-08-23 18:00 G	21778221.10	21778221.25	21778221.40	0.1786	0.0531
Mercury	54923-03-20 14:53 G	21781352.00	21781352.12	21781352.24	0.1743	0.0032
Moon	54925-01-06 06:00 G	21782009.57	21782009.75	21782009.93	0.1704	0.0392
Earth	54925-01-06 12:43 G	21782009.84	21782010.03	21782010.21	0.1704	0.0309 *
Mercury	54932-08-10 00:29 G	21784782.43	21784782.52	21784782.62	0.1736	0.1046
Venus	54941-09-04 10:19 G	21788094.78	21788094.93	21788095.08	0.1619	0.0778
Mercury	54944-10-01 19:12 G	21789218.22	21789218.30	21789218.38	0.1778	0.1521
Mercury	54953-04-28 05:02 G	21792348.62	21792348.71	21792348.80	0.1749	0.1158
Mercury	54954-02-21 18:43 G	21792648.12	21792648.28	21792648.43	0.1786	0.0288
Mercury	54962-09-18 14:53 G	21795779.00	21795779.12	21795779.24	0.1743	0.0136
Mercury	54972-02-09 00:29 G	21799209.42	21799209.52	21799209.62	0.1736	0.0893
Venus	54976-06-08 14:24 G	21800791.09	21800791.10	21800791.11	0.1907	0.1902
Moon	54978-07-10 23:31 G	21801553.31	21801553.48	21801553.64	0.1823	0.0709
Earth	54978-07-11 01:12 G	21801553.38	21801553.55	21801553.73	0.1823	0.0887 *
Mercury	54984-04-01 19:55 G	21803645.31	21803645.33	21803645.35	0.1778	0.1759
Mercury	54992-10-27 05:02 G	21806775.64	21806775.71	21806775.79	0.1749	0.1304
Mercury	54993-08-22 18:58 G	21807075.13	21807075.29	21807075.45	0.1785	0.0075

56TH MILLENNIUM CE

This is a list of transits visible from Mars in the 56th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	55002-03-20 14:53 G		21810206.00	21810206.12	21810206.24	0.1742	0.0280	

Venus	55007-07-03 22:48 G	21812137.28	21812137.45	21812137.61	0.1618	0.0520
Mercury	55011-08-11 00:29 G	21813636.41	21813636.52	21813636.63	0.1736	0.0757
Mercury	55032-04-28 05:02 G	21821202.65	21821202.71	21821202.78	0.1749	0.1459
Mercury	55033-02-21 19:41 G	21821502.16	21821502.32	21821502.47	0.1785	0.0163
Mercury	55041-09-18 14:53 G	21824633.00	21824633.12	21824633.23	0.1742	0.0423
Venus	55042-04-06 15:50 G	21824833.00	21824833.16	21824833.31	0.1908	0.0939
Mercury	55042-07-14 18:43 G	21824932.23	21824932.28	21824932.34	0.1793	0.1672
Mercury	55051-02-09 00:29 G	21828063.41	21828063.52	21828063.64	0.1736	0.0602
Mercury	55060-07-01 10:05 G	21831493.88	21831493.92	21831493.96	0.1730	0.1625
Mercury	55071-10-28 05:02 G	21835629.66	21835629.71	21835629.76	0.1749	0.1587
Mercury	55072-08-22 20:10 G	21835929.19	21835929.34	21835929.50	0.1786	0.0397
Venus	55073-04-30 11:31 G	21836179.81	21836179.98	21836180.15	0.1617	0.0273
Mercury	55081-03-19 14:53 G	21839060.01	21839060.12	21839060.23	0.1743	0.0571
Mercury	55082-01-12 19:26 G	21839359.22	21839359.31	21839359.40	0.1793	0.1436
Mercury	55090-08-10 00:29 G	21842490.41	21842490.52	21842490.64	0.1736	0.0454
Mercury	55099-12-31 10:19 G	21845920.87	21845920.93	21845920.99	0.1730	0.1474
Venus	55108-02-02 17:31 G	21848875.06	21848875.23	21848875.41	0.1910	0.0036
Mercury	55111-04-29 05:02 G	21850056.71	21850056.71	21850056.72	0.1749	0.1741
Mercury	55112-02-22 20:38 G	21850356.21	21850356.36	21850356.51	0.1785	0.0613
Mercury	55120-09-18 14:53 G	21853487.01	21853487.12	21853487.23	0.1742	0.0715
Mercury	55121-07-14 19:41 G	21853786.21	21853786.32	21853786.44	0.1793	0.1229
Mercury	55130-02-09 00:29 G	21856917.40	21856917.52	21856917.64	0.1736	0.0314
Venus	55139-02-27 00:14 G	21860222.33	21860222.51	21860222.68	0.1616	0.0034
Mercury	55139-07-02 10:19 G	21860347.85	21860347.93	21860348.00	0.1730	0.1324
Mercury	55151-08-23 21:07 G	21864783.24	21864783.38	21864783.52	0.1785	0.0839
Mercury	55160-03-19 14:53 G	21867914.02	21867914.12	21867914.22	0.1743	0.0861
Mercury	55161-01-12 20:24 G	21868213.22	21868213.35	21868213.48	0.1793	0.0986
Mercury	55169-08-10 00:29 G	21871344.40	21871344.52	21871344.64	0.1736	0.0168
Venus	55173-11-29 19:41 G	21872917.16	21872917.32	21872917.47	0.1911	0.0931
Mercury	55178-12-31 10:19 G	21874774.84	21874774.93	21874775.01	0.1730	0.1180

Mercury	55191-02-21 21:50 G	21879210.29	21879210.41	21879210.54	0.1785	0.1088
Mercury	55199-09-18 14:53 G	21882341.02	21882341.12	21882341.21	0.1743	0.1005
Mercury	55200-07-13 20:53 G	21882640.23	21882640.37	21882640.52	0.1792	0.0764
Venus	55204-12-24 12:58 G	21884264.87	21884265.04	21884265.22	0.1615	0.0230
Earth	55209-01-09 09:22 G	21885741.73	21885741.89	21885742.05	0.1698	0.0854
Moon	55209-01-09 13:41 G	21885741.95	21885742.07	21885742.20	0.1698	0.1168 *
Mercury	55209-02-08 00:43 G	21885771.41	21885771.53	21885771.65	0.1736	0.0058
Mercury	55218-07-01 10:19 G	21889201.83	21889201.93	21889202.02	0.1730	0.1031
Mercury	55230-08-22 22:19 G	21893637.32	21893637.43	21893637.54	0.1785	0.1296
Mercury	55239-03-19 14:53 G	21896768.03	21896768.12	21896768.21	0.1742	0.1152
Venus	55239-09-26 21:22 G	21896959.36	21896959.39	21896959.41	0.1913	0.1889
Mercury	55240-01-12 21:22 G	21897067.24	21897067.39	21897067.54	0.1793	0.0542
Mercury	55248-08-09 00:29 G	21900198.40	21900198.52	21900198.64	0.1736	0.0137
Mercury	55257-12-30 10:19 G	21903628.83	21903628.93	21903629.03	0.1730	0.0877
Earth	55262-07-12 19:55 G	21905284.13	21905284.33	21905284.53	0.1832	0.0098
Moon	55262-07-13 03:36 G	21905284.44	21905284.65	21905284.85	0.1831	0.0110 *
Mercury	55270-02-20 22:48 G	21908064.37	21908064.45	21908064.53	0.1785	0.1527
Venus	55270-10-22 01:55 G	21908307.41	21908307.58	21908307.74	0.1615	0.0475
Mercury	55278-09-17 14:53 G	21911195.04	21911195.12	21911195.20	0.1742	0.1295
Mercury	55279-07-13 22:05 G	21911494.26	21911494.42	21911494.57	0.1793	0.0308
Mercury	55288-02-08 00:43 G	21914625.41	21914625.53	21914625.64	0.1736	0.0286
Mercury	55297-06-30 10:19 G	21918055.82	21918055.93	21918056.03	0.1730	0.0741
Mercury	55309-08-22 23:31 G	21922491.47	21922491.48	21922491.49	0.1785	0.1775
Mercury	55318-03-19 14:53 G	21925622.06	21925622.12	21925622.19	0.1743	0.1445
Mercury	55319-01-12 22:34 G	21925921.28	21925921.44	21925921.60	0.1792	0.0082
Mercury	55327-08-10 00:43 G	21929052.41	21929052.53	21929052.64	0.1736	0.0429
Venus	55336-08-19 14:53 G	21932349.96	21932350.12	21932350.27	0.1614	0.0712
Mercury	55336-12-30 10:19 G	21932482.82	21932482.93	21932483.04	0.1730	0.0587
Mercury	55346-05-22 19:55 G	21935913.29	21935913.33	21935913.38	0.1724	0.1593
Mercury	55357-09-17 14:53 G	21940049.07	21940049.12	21940049.17	0.1742	0.1583

Mercury	55358-07-13 23:02 G	21940348.30	21940348.46	21940348.62	0.1793	0.0141
Mercury	55367-02-08 00:43 G	21943479.41	21943479.53	21943479.64	0.1736	0.0571
Mercury	55367-12-03 22:34 G	21943778.39	21943778.44	21943778.50	0.1800	0.1663
Venus	55368-08-18 06:29 G	21944036.70	21944036.77	21944036.84	0.1616	0.1476
Mercury	55376-06-30 10:19 G	21946909.82	21946909.93	21946910.05	0.1730	0.0437
Mercury	55385-11-20 19:55 G	21950340.27	21950340.33	21950340.40	0.1724	0.1447
Mercury	55397-03-18 14:53 G	21954476.11	21954476.12	21954476.13	0.1743	0.1731
Mercury	55398-01-11 23:46 G	21954775.33	21954775.49	21954775.64	0.1792	0.0383
Venus	55402-06-18 03:22 G	21956392.50	21956392.64	21956392.78	0.1613	0.0963
Venus	55403-05-23 03:36 G	21956731.52	21956731.65	21956731.79	0.1911	0.1178
Mercury	55406-08-10 00:43 G	21957906.42	21957906.53	21957906.64	0.1736	0.0718
Mercury	55407-06-04 22:48 G	21958205.36	21958205.45	21958205.54	0.1800	0.1466
Moon	55414-01-09 20:24 G	21960616.27	21960616.35	21960616.43	0.1688	0.1539
Earth	55414-01-10 00:43 G	21960616.41	21960616.53	21960616.65	0.1688	0.1262 *
Mercury	55415-12-31 10:19 G	21961336.81	21961336.93	21961337.05	0.1730	0.0296
Mercury	55425-05-22 20:10 G	21964767.26	21964767.34	21964767.41	0.1724	0.1300
Venus	55434-06-16 19:12 G	21968079.19	21968079.30	21968079.41	0.1616	0.1226
Mercury	55437-07-14 00:14 G	21969202.36	21969202.51	21969202.66	0.1792	0.0605
Mercury	55446-02-08 00:43 G	21972333.43	21972333.53	21972333.63	0.1736	0.0868
Mercury	55446-12-03 23:31 G	21972632.37	21972632.48	21972632.60	0.1800	0.1222
Mercury	55455-07-01 10:19 G	21975763.81	21975763.93	21975764.05	0.1730	0.0150
Mercury	55464-11-20 20:10 G	21979194.25	21979194.34	21979194.43	0.1724	0.1151
Venus	55468-04-14 16:34 G	21980435.08	21980435.19	21980435.30	0.1613	0.1196
Venus	55469-03-19 05:17 G	21980773.54	21980773.72	21980773.89	0.1912	0.0215
Mercury	55477-01-12 00:43 G	21983629.39	21983629.53	21983629.67	0.1793	0.0838
Mercury	55485-08-09 00:43 G	21986760.43	21986760.53	21986760.62	0.1736	0.1005
Mercury	55486-06-04 00:14 G	21987059.38	21987059.51	21987059.64	0.1799	0.0988
Earth	55493-01-12 07:41 G	21989473.73	21989473.82	21989473.92	0.1692	0.1453
Mercury	55494-12-30 10:34 G	21990190.82	21990190.94	21990191.06	0.1730	0.0068
Venus	55500-04-14 08:10 G	21992121.71	21992121.84	21992121.98	0.1615	0.0983

Mercury	55504-05-22 20:10 G	21993621.24	21993621.34	21993621.44	0.1724	0.1002
Mercury	55516-07-14 01:12 G	21998056.43	21998056.55	21998056.68	0.1792	0.1066
Mercury	55525-02-08 00:43 G	22001187.44	22001187.53	22001187.62	0.1736	0.1156
Mercury	55525-12-04 00:29 G	22001486.38	22001486.52	22001486.66	0.1800	0.0779
Venus	55534-02-11 05:17 G	22004477.64	22004477.72	22004477.79	0.1612	0.1441
Mercury	55534-07-01 10:19 G	22004617.81	22004617.93	22004618.05	0.1730	0.0142
Venus	55535-01-15 06:58 G	22004815.62	22004815.79	22004815.95	0.1913	0.0735
Mercury	55543-11-21 20:10 G	22008048.24	22008048.34	22008048.45	0.1724	0.0855
Moon	55546-07-15 05:31 G	22009014.60	22009014.73	22009014.86	0.1840	0.1413
Earth	55546-07-15 13:41 G	22009014.90	22009015.07	22009015.25	0.1840	0.0796
Mercury	55556-01-13 01:55 G	22012483.47	22012483.58	22012483.69	0.1792	0.1298
Mercury	55564-08-09 00:43 G	22015614.45	22015614.53	22015614.61	0.1736	0.1299
Mercury	55565-06-04 01:12 G	22015913.40	22015913.55	22015913.70	0.1800	0.0548
Venus	55566-02-09 20:53 G	22016164.22	22016164.37	22016164.52	0.1614	0.0730
Mercury	55573-12-30 10:34 G	22019044.82	22019044.94	22019045.05	0.1730	0.0299
Mercury	55583-05-22 20:10 G	22022475.23	22022475.34	22022475.45	0.1724	0.0706
Mercury	55592-10-12 05:46 G	22025905.74	22025905.74	22025905.75	0.1718	0.1713
Mercury	55595-07-14 02:24 G	22026910.52	22026910.60	22026910.68	0.1792	0.1520
Venus	55600-11-11 08:53 G	22028857.79	22028857.87	22028857.96	0.1914	0.1673
Mercury	55604-02-08 00:43 G	22030041.47	22030041.53	22030041.59	0.1737	0.1442
Mercury	55604-12-03 01:55 G	22030340.42	22030340.58	22030340.73	0.1799	0.0300
Mercury	55613-06-30 10:34 G	22033471.82	22033471.94	22033472.05	0.1730	0.0445
Mercury	55622-11-20 20:10 G	22036902.23	22036902.34	22036902.46	0.1724	0.0563
Venus	55631-12-08 09:50 G	22040206.75	22040206.91	22040207.08	0.1613	0.0494
Mercury	55632-04-12 06:00 G	22040332.70	22040332.75	22040332.80	0.1718	0.1556
Mercury	55635-01-12 03:07 G	22041337.60	22041337.63	22041337.65	0.1792	0.1758
Mercury	55643-08-09 00:43 G	22044468.49	22044468.53	22044468.58	0.1736	0.1588
Mercury	55644-06-03 02:10 G	22044767.43	22044767.59	22044767.74	0.1800	0.0106
Mercury	55652-12-29 10:19 G	22047898.82	22047898.93	22047899.05	0.1730	0.0583
Mercury	55662-05-21 20:10 G	22051329.23	22051329.34	22051329.46	0.1724	0.0417

Mercury	55671-10-12 06:00 G	22054759.68	22054759.75	22054759.82	0.1718	0.1408
Mercury	55683-02-07 00:43 G	22058895.53	22058895.53	22058895.53	0.1736	0.1734
Mercury	55683-12-03 02:53 G	22059194.46	22059194.62	22059194.77	0.1799	0.0149
Mercury	55692-06-29 10:34 G	22062325.83	22062325.94	22062326.05	0.1730	0.0729
Mercury	55693-04-24 01:55 G	22062624.53	22062624.58	22062624.63	0.1807	0.1703
Venus	55697-10-04 22:48 G	22064249.28	22064249.45	22064249.62	0.1613	0.0246
Moon	55698-01-11 21:36 G	22064348.25	22064348.40	22064348.56	0.1683	0.0819
Earth	55698-01-12 00:29 G	22064348.35	22064348.52	22064348.70	0.1683	0.0590 *
Mercury	55701-11-20 20:10 G	22065756.23	22065756.34	22065756.46	0.1724	0.0274
Mercury	55711-04-13 06:00 G	22069186.67	22069186.75	22069186.83	0.1718	0.1265
Mercury	55723-06-04 03:22 G	22073621.49	22073621.64	22073621.80	0.1799	0.0375
Mercury	55731-12-30 10:34 G	22076752.84	22076752.94	22076753.04	0.1730	0.0879
Mercury	55732-10-24 02:38 G	22077051.52	22077051.61	22077051.70	0.1807	0.1468
Mercury	55741-05-21 20:24 G	22080183.23	22080183.35	22080183.47	0.1724	0.0128
Mercury	55750-10-12 06:00 G	22083613.66	22083613.75	22083613.84	0.1718	0.1116
Mercury	55762-12-03 03:50 G	22088048.51	22088048.66	22088048.81	0.1799	0.0589
Venus	55763-08-03 11:46 G	22088291.81	22088291.99	22088292.16	0.1612	0.0036
Venus	55764-07-06 15:07 G	22088630.01	22088630.13	22088630.25	0.1913	0.1380
Mercury	55771-06-30 10:34 G	22091179.84	22091179.94	22091180.03	0.1730	0.1014
Mercury	55772-04-24 03:22 G	22091478.52	22091478.64	22091478.75	0.1807	0.1231
Mercury	55780-11-19 20:24 G	22094610.23	22094610.35	22094610.47	0.1724	0.0048
Mercury	55790-04-12 06:00 G	22098040.65	22098040.75	22098040.85	0.1718	0.0965
Mercury	55802-06-04 04:19 G	22102475.54	22102475.68	22102475.82	0.1799	0.0824
Mercury	55810-12-30 10:34 G	22105606.85	22105606.94	22105607.03	0.1730	0.1164
Mercury	55811-10-25 03:36 G	22105905.52	22105905.65	22105905.78	0.1806	0.1018
Mercury	55820-05-21 20:24 G	22109037.23	22109037.35	22109037.47	0.1724	0.0173
Venus	55829-06-01 00:29 G	22112334.35	22112334.52	22112334.69	0.1612	0.0238
Mercury	55829-10-12 06:00 G	22112467.64	22112467.75	22112467.85	0.1718	0.0828
Venus	55830-05-04 17:02 G	22112672.04	22112672.21	22112672.38	0.1914	0.0445
Mercury	55841-12-03 05:02 G	22116902.58	22116902.71	22116902.84	0.1799	0.1066

Mercury	55850-06-30 10:34 G	22120033.87	22120033.94	22120034.02	0.1730	0.1310
Mercury	55851-04-25 04:05 G	22120332.53	22120332.67	22120332.81	0.1806	0.0797
Mercury	55859-11-20 20:24 G	22123464.23	22123464.35	22123464.47	0.1724	0.0314
Mercury	55869-04-12 06:00 G	22126894.64	22126894.75	22126894.87	0.1718	0.0675
Mercury	55878-09-02 15:50 G	22130325.13	22130325.16	22130325.18	0.1712	0.1666
Mercury	55881-06-03 05:17 G	22131329.61	22131329.72	22131329.83	0.1799	0.1265
Mercury	55889-12-29 10:34 G	22134460.88	22134460.94	22134461.00	0.1730	0.1444
Mercury	55890-10-24 04:48 G	22134759.55	22134759.70	22134759.85	0.1806	0.0547
Venus	55895-03-29 13:26 G	22136376.90	22136377.06	22136377.23	0.1611	0.0474
Venus	55896-02-29 18:29 G	22136714.10	22136714.27	22136714.44	0.1914	0.0529
Mercury	55899-05-21 20:24 G	22137891.24	22137891.35	22137891.47	0.1724	0.0462
Mercury	55908-10-12 06:00 G	22141321.64	22141321.75	22141321.87	0.1718	0.0532
Mercury	55918-03-04 15:50 G	22144752.11	22144752.16	22144752.21	0.1712	0.1513
Mercury	55920-12-03 06:00 G	22145756.67	22145756.75	22145756.84	0.1799	0.1511
Mercury	55929-06-30 10:34 G	22148887.90	22148887.94	22148887.99	0.1730	0.1592
Mercury	55930-04-25 05:02 G	22149186.56	22149186.71	22149186.87	0.1806	0.0350
Mercury	55938-11-20 20:24 G	22152318.24	22152318.35	22152318.46	0.1724	0.0602
Mercury	55948-04-12 06:00 G	22155748.64	22155748.75	22155748.87	0.1718	0.0392
Mercury	55957-09-02 15:50 G	22159179.09	22159179.16	22159179.23	0.1712	0.1365
Mercury	55960-06-03 06:29 G	22160183.74	22160183.77	22160183.81	0.1799	0.1738
Venus	55961-01-25 02:10 G	22160419.44	22160419.59	22160419.75	0.1611	0.0719
Venus	55961-12-27 19:55 G	22160756.22	22160756.33	22160756.44	0.1915	0.1485
Mercury	55969-10-24 05:46 G	22163613.58	22163613.74	22163613.90	0.1806	0.0112
Mercury	55978-05-21 20:24 G	22166745.24	22166745.35	22166745.46	0.1724	0.0747
Earth	55982-01-16 01:12 G	22168080.36	22168080.55	22168080.74	0.1678	0.0099
Moon	55982-01-16 07:41 G	22168080.64	22168080.82	22168081.01	0.1678	0.0095 *
Mercury	55987-10-12 06:14 G	22170175.64	22170175.76	22170175.88	0.1718	0.0245
Venus	55993-01-23 17:46 G	22172106.17	22172106.24	22172106.31	0.1613	0.1448
Mercury	55997-03-03 15:50 G	22173606.08	22173606.16	22173606.24	0.1712	0.1224

57TH MILLENNIUM CE

This is a list of transits visible from Mars in the 57th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	56009-04-24 06:29	G	22178040.61	22178040.77	22178040.92	0.1806	0.0136	
Mercury	56017-11-19 20:24	G	22181172.25	22181172.35	22181172.45	0.1724	0.0891	
Mercury	56018-09-14 05:31	G	22181470.69	22181470.73	22181470.77	0.1813	0.1734	
Venus	56026-11-22 15:22	G	22184462.00	22184462.14	22184462.28	0.1611	0.0957	
Mercury	56027-04-12 06:14	G	22184602.64	22184602.76	22184602.88	0.1718	0.0095	
Mercury	56036-09-01 15:50	G	22188033.07	22188033.16	22188033.26	0.1712	0.1077	
Mercury	56048-10-23 06:43	G	22192467.62	22192467.78	22192467.93	0.1806	0.0332	
Mercury	56057-05-20 20:24	G	22195599.26	22195599.35	22195599.45	0.1724	0.1032	
Mercury	56058-03-15 06:00	G	22195897.67	22195897.75	22195897.83	0.1814	0.1517	
Venus	56058-11-21 06:43	G	22196148.67	22196148.78	22196148.90	0.1612	0.1211	
Mercury	56066-10-11 06:14	G	22199029.64	22199029.76	22199029.88	0.1718	0.0062	
Mercury	56076-03-02 16:05	G	22202460.07	22202460.17	22202460.27	0.1712	0.0926	
Mercury	56088-04-23 07:12	G	22206894.65	22206894.80	22206894.95	0.1806	0.0553	
Venus	56092-09-19 04:19	G	22208504.57	22208504.68	22208504.80	0.1610	0.1196	
Mercury	56096-11-18 20:24	G	22210026.27	22210026.35	22210026.44	0.1724	0.1174	
Mercury	56097-09-13 06:29	G	22210324.66	22210324.77	22210324.88	0.1813	0.1286	
Mercury	56106-04-12 06:14	G	22213456.64	22213456.76	22213456.88	0.1718	0.0197	
Mercury	56115-09-02 15:50	G	22216887.06	22216887.16	22216887.27	0.1712	0.0793	
Venus	56124-09-18 19:41	G	22220191.18	22220191.32	22220191.46	0.1612	0.0961	
Venus	56125-08-22 02:24	G	22220528.50	22220528.60	22220528.69	0.1914	0.1576	

Mercury	56127-10-24 07:55 G	22221321.69	22221321.83	22221321.97	0.1806	0.0808
Mercury	56136-05-20 20:24 G	22224453.28	22224453.35	22224453.43	0.1724	0.1323
Mercury	56137-03-15 06:58 G	22224751.67	22224751.79	22224751.92	0.1813	0.1067
Mercury	56145-10-11 06:14 G	22227883.64	22227883.76	22227883.88	0.1718	0.0337
Mercury	56155-03-03 16:05 G	22231314.06	22231314.17	22231314.28	0.1712	0.0640
Venus	56158-07-18 17:02 G	22232547.14	22232547.21	22232547.28	0.1610	0.1443
Mercury	56164-07-24 01:41 G	22234744.54	22234744.57	22234744.61	0.1706	0.1613
Mercury	56167-04-24 08:10 G	22235748.71	22235748.84	22235748.97	0.1806	0.1000
Mercury	56175-11-19 20:24 G	22238880.29	22238880.35	22238880.41	0.1724	0.1455
Mercury	56176-09-13 07:26 G	22239178.67	22239178.81	22239178.95	0.1814	0.0845
Mercury	56185-04-11 06:14 G	22242310.64	22242310.76	22242310.88	0.1718	0.0478
Venus	56190-07-17 08:24 G	22244233.70	22244233.85	22244234.00	0.1611	0.0721
Venus	56191-06-19 03:36 G	22244570.49	22244570.65	22244570.82	0.1915	0.0609
Earth	56193-07-21 19:12 G	22245334.22	22245334.30	22245334.39	0.1851	0.1675
Mercury	56194-09-01 16:05 G	22245741.05	22245741.17	22245741.29	0.1712	0.0493
Mercury	56204-01-24 01:41 G	22249171.51	22249171.57	22249171.63	0.1706	0.1467
Mercury	56206-10-24 08:53 G	22250175.75	22250175.87	22250175.98	0.1806	0.1237
Mercury	56215-05-21 20:24 G	22253307.31	22253307.35	22253307.39	0.1724	0.1600
Mercury	56216-03-15 07:55 G	22253605.69	22253605.83	22253605.98	0.1813	0.0622
Mercury	56224-10-11 06:14 G	22256737.65	22256737.76	22256737.87	0.1718	0.0623
Mercury	56234-03-03 16:05 G	22260168.05	22260168.17	22260168.29	0.1712	0.0356
Mercury	56243-07-25 01:41 G	22263598.50	22263598.57	22263598.65	0.1707	0.1325
Mercury	56246-04-24 09:22 G	22264602.80	22264602.89	22264602.98	0.1806	0.1474
Mercury	56255-09-14 08:24 G	22268032.70	22268032.85	22268033.01	0.1813	0.0402
Venus	56256-05-14 21:07 G	22268276.22	22268276.38	22268276.55	0.1611	0.0475
Venus	56257-04-16 05:31 G	22268612.56	22268612.73	22268612.90	0.1915	0.0340
Mercury	56264-04-11 06:14 G	22271164.66	22271164.76	22271164.87	0.1718	0.0770
Moon	56266-01-19 00:29 G	22271812.34	22271812.52	22271812.71	0.1672	0.0707
Earth	56266-01-19 01:55 G	22271812.42	22271812.58	22271812.75	0.1673	0.0782 *
Mercury	56273-09-01 16:05 G	22274595.05	22274595.17	22274595.29	0.1712	0.0209

Mercury	56283-01-23 01:55 G	22278025.49	22278025.58	22278025.66	0.1706	0.1178
Mercury	56285-10-23 09:36 G	22279029.85	22279029.90	22279029.96	0.1806	0.1677
Mercury	56295-03-15 08:53 G	22282459.72	22282459.87	22282460.03	0.1814	0.0181
Mercury	56303-10-12 06:14 G	22285591.66	22285591.76	22285591.86	0.1718	0.0903
Mercury	56313-03-03 16:05 G	22289022.05	22289022.17	22289022.29	0.1712	0.0071
Venus	56322-03-13 10:05 G	22292318.75	22292318.92	22292319.09	0.1611	0.0235
Mercury	56322-07-25 01:55 G	22292452.48	22292452.58	22292452.67	0.1706	0.1037
Venus	56323-02-12 06:43 G	22292654.65	22292654.78	22292654.90	0.1916	0.1325
Mercury	56334-09-14 09:22 G	22296886.74	22296886.89	22296887.05	0.1813	0.0063
Mercury	56343-04-12 06:14 G	22300018.67	22300018.76	22300018.86	0.1718	0.1052
Mercury	56344-02-04 08:38 G	22300316.85	22300316.86	22300316.87	0.1820	0.1813
Mercury	56352-09-01 16:05 G	22303449.05	22303449.17	22303449.29	0.1712	0.0075
Mercury	56362-01-23 01:55 G	22306879.48	22306879.58	22306879.68	0.1707	0.0887
Mercury	56374-03-15 09:50 G	22311313.76	22311313.91	22311314.07	0.1813	0.0268
Mercury	56382-10-11 06:14 G	22314445.68	22314445.76	22314445.85	0.1718	0.1189
Mercury	56383-08-05 09:07 G	22314743.81	22314743.88	22314743.96	0.1820	0.1585
Venus	56388-01-08 22:48 G	22316361.28	22316361.45	22316361.63	0.1610	0.0046
Mercury	56392-03-02 16:05 G	22317876.05	22317876.17	22317876.29	0.1712	0.0226
Mercury	56401-07-24 01:55 G	22321306.47	22321306.58	22321306.69	0.1706	0.0747
Mercury	56413-09-13 10:19 G	22325740.78	22325740.93	22325741.09	0.1814	0.0495
Mercury	56422-04-11 06:14 G	22328872.69	22328872.76	22328872.84	0.1718	0.1331
Mercury	56423-02-03 09:50 G	22329170.81	22329170.91	22329171.01	0.1820	0.1350
Mercury	56431-09-01 16:05 G	22332303.06	22332303.17	22332303.29	0.1712	0.0370
Mercury	56441-01-22 01:55 G	22335733.47	22335733.58	22335733.69	0.1706	0.0602
Mercury	56450-06-14 11:46 G	22339163.94	22339163.99	22339164.03	0.1701	0.1568
Mercury	56453-03-14 10:48 G	22340167.81	22340167.95	22340168.10	0.1813	0.0713
Venus	56453-11-05 12:00 G	22340403.83	22340404.00	22340404.17	0.1610	0.0250
Mercury	56461-10-10 06:14 G	22343299.71	22343299.76	22343299.82	0.1718	0.1472
Mercury	56462-08-04 10:05 G	22343597.80	22343597.92	22343598.04	0.1820	0.1156
Earth	56471-01-18 21:22 G	22346687.25	22346687.39	22346687.53	0.1664	0.1077

Moon	56471-01-18 22:05 G	22346687.28	22346687.42	22346687.56	0.1664	0.0987 *
Mercury	56471-03-02 16:05 G	22346730.06	22346730.17	22346730.29	0.1712	0.0501
Moon	56477-07-23 03:36 G	22349064.43	22349064.65	22349064.87	0.1859	0.0028
Earth	56477-07-23 05:17 G	22349064.52	22349064.72	22349064.92	0.1859	0.0279 *
Mercury	56480-07-23 01:55 G	22350160.46	22350160.58	22350160.70	0.1707	0.0460
Venus	56486-10-06 12:14 G	22352426.93	22352427.01	22352427.09	0.1914	0.1696
Mercury	56489-12-13 11:46 G	22353590.92	22353590.99	22353591.05	0.1701	0.1420
Mercury	56492-09-12 11:17 G	22354594.84	22354594.97	22354595.11	0.1813	0.0934
Mercury	56501-04-11 06:29 G	22357726.73	22357726.77	22357726.80	0.1718	0.1614
Mercury	56502-02-03 10:34 G	22358024.81	22358024.94	22358025.08	0.1820	0.0919
Mercury	56510-09-01 16:05 G	22361157.06	22361157.17	22361157.29	0.1712	0.0646
Venus	56519-09-04 00:58 G	22364446.37	22364446.54	22364446.70	0.1610	0.0493
Mercury	56520-01-23 01:55 G	22364587.46	22364587.58	22364587.70	0.1706	0.0317
Mercury	56529-06-14 11:46 G	22368017.91	22368017.99	22368018.07	0.1701	0.1283
Mercury	56532-03-14 12:00 G	22369021.88	22369022.00	22369022.12	0.1813	0.1165
Mercury	56541-08-04 11:17 G	22372451.82	22372451.97	22372452.11	0.1820	0.0698
Moon	56550-01-21 20:53 G	22375544.27	22375544.37	22375544.47	0.1667	0.1352
Earth	56550-01-22 02:24 G	22375544.51	22375544.60	22375544.70	0.1668	0.1442
Mercury	56550-03-02 16:19 G	22375584.07	22375584.18	22375584.28	0.1712	0.0794
Venus	56552-08-03 14:24 G	22376468.94	22376469.10	22376469.26	0.1915	0.0772
Mercury	56559-07-24 01:55 G	22379014.46	22379014.58	22379014.70	0.1706	0.0177
Mercury	56568-12-13 11:46 G	22382444.90	22382444.99	22382445.08	0.1701	0.1134
Mercury	56571-09-13 12:14 G	22383448.91	22383449.01	22383449.11	0.1813	0.1379
Mercury	56581-02-02 11:31 G	22386878.83	22386878.98	22386879.13	0.1820	0.0493
Venus	56585-07-01 13:26 G	22388488.91	22388489.06	22388489.22	0.1610	0.0742
Mercury	56589-08-31 16:05 G	22390011.07	22390011.17	22390011.27	0.1712	0.0923
Mercury	56599-01-22 01:55 G	22393441.46	22393441.58	22393441.71	0.1707	0.0064
Mercury	56608-06-14 11:46 G	22396871.89	22396871.99	22396872.09	0.1701	0.0990
Mercury	56611-03-15 12:43 G	22397875.96	22397876.03	22397876.11	0.1813	0.1598
Venus	56617-07-01 04:48 G	22400175.62	22400175.70	22400175.78	0.1611	0.1423

Venus	56618-06-01 15:22 G	22400510.97	22400511.14	22400511.32	0.1915	0.0217
Mercury	56620-08-04 12:00 G	22401305.85	22401306.00	22401306.16	0.1820	0.0262
Mercury	56629-03-02 16:19 G	22404438.08	22404438.18	22404438.27	0.1712	0.1072
Mercury	56638-07-24 01:55 G	22407868.46	22407868.58	22407868.70	0.1706	0.0110
Mercury	56647-12-14 11:46 G	22411298.89	22411298.99	22411299.10	0.1701	0.0852
Venus	56651-04-30 02:38 G	22412531.48	22412531.61	22412531.75	0.1610	0.0977
Mercury	56660-02-03 12:43 G	22415732.87	22415733.03	22415733.18	0.1820	0.0047
Mercury	56668-08-31 16:19 G	22418865.09	22418865.18	22418865.26	0.1712	0.1212
Mercury	56678-01-22 02:10 G	22422295.47	22422295.59	22422295.70	0.1707	0.0261
Venus	56683-04-28 17:46 G	22424218.12	22424218.24	22424218.36	0.1610	0.1175
Venus	56684-03-28 17:17 G	22424553.09	22424553.22	22424553.36	0.1915	0.1159
Mercury	56687-06-14 11:46 G	22425725.88	22425725.99	22425726.10	0.1701	0.0705
Mercury	56696-11-03 21:22 G	22429156.38	22429156.39	22429156.41	0.1695	0.1667
Mercury	56699-08-04 12:58 G	22430159.88	22430160.04	22430160.19	0.1820	0.0175
Mercury	56708-03-02 16:05 G	22433292.10	22433292.17	22433292.25	0.1712	0.1346
Mercury	56708-12-25 12:43 G	22433589.96	22433590.03	22433590.09	0.1827	0.1647
Venus	56717-02-25 15:07 G	22436574.02	22436574.13	22436574.24	0.1610	0.1229
Mercury	56717-07-24 02:10 G	22436722.47	22436722.59	22436722.70	0.1707	0.0398
Mercury	56726-12-14 12:00 G	22440152.88	22440153.00	22440153.11	0.1701	0.0563
Mercury	56736-05-05 21:36 G	22443583.35	22443583.40	22443583.45	0.1695	0.1516
Mercury	56739-02-03 13:26 G	22444586.91	22444587.06	22444587.22	0.1820	0.0409
Mercury	56747-09-01 16:19 G	22447719.12	22447719.18	22447719.23	0.1712	0.1488
Mercury	56748-06-25 12:43 G	22448016.94	22448017.03	22448017.12	0.1827	0.1459
Venus	56749-02-24 06:29 G	22448260.63	22448260.77	22448260.91	0.1610	0.0935
Earth	56755-01-22 23:17 G	22450419.29	22450419.47	22450419.65	0.1660	0.0364
Moon	56755-01-23 04:48 G	22450419.51	22450419.70	22450419.90	0.1660	0.0234 *
Mercury	56757-01-22 02:10 G	22451149.47	22451149.59	22451149.70	0.1706	0.0537
Moon	56761-07-25 07:12 G	22452794.77	22452794.80	22452794.83	0.1867	0.1838
Earth	56761-07-25 13:12 G	22452794.91	22452795.05	22452795.19	0.1867	0.1304
Mercury	56766-06-14 11:46 G	22454579.88	22454579.99	22454580.11	0.1701	0.0425

Mercury	56775-11-04 21:36 G	22458010.33	22458010.40	22458010.47	0.1696	0.1371
Mercury	56778-08-04 13:55 G	22459013.94	22459014.08	22459014.23	0.1820	0.0625
Venus	56782-12-24 04:19 G	22460616.61	22460616.68	22460616.75	0.1610	0.1462
Mercury	56787-03-02 16:19 G	22462146.15	22462146.18	22462146.21	0.1712	0.1633
Mercury	56787-12-25 13:26 G	22462443.94	22462444.06	22462444.17	0.1827	0.1226
Mercury	56796-07-23 02:10 G	22465576.48	22465576.59	22465576.70	0.1706	0.0676
Mercury	56805-12-13 12:00 G	22469006.88	22469007.00	22469007.12	0.1701	0.0279
Venus	56814-12-22 19:26 G	22472303.15	22472303.31	22472303.47	0.1610	0.0692
Mercury	56815-05-05 21:36 G	22472437.32	22472437.40	22472437.48	0.1695	0.1233
Mercury	56818-02-02 14:24 G	22473440.96	22473441.10	22473441.24	0.1820	0.0838
Mercury	56827-06-25 13:55 G	22476870.95	22476871.08	22476871.21	0.1827	0.0993
Mercury	56836-01-22 02:10 G	22480003.48	22480003.59	22480003.70	0.1707	0.0819
Mercury	56845-06-13 12:00 G	22483433.88	22483434.00	22483434.12	0.1701	0.0138
Venus	56847-11-21 22:48 G	22484325.41	22484325.45	22484325.49	0.1915	0.1848
Mercury	56854-11-03 21:36 G	22486864.31	22486864.40	22486864.50	0.1695	0.1086
Mercury	56857-08-03 14:53 G	22487868.00	22487868.12	22487868.25	0.1820	0.1068
Mercury	56866-12-24 14:10 G	22491297.95	22491298.09	22491298.23	0.1827	0.0795
Mercury	56875-07-23 02:10 G	22494430.49	22494430.59	22494430.69	0.1706	0.0953
Venus	56880-10-19 08:38 G	22496345.69	22496345.86	22496346.02	0.1610	0.0457
Mercury	56884-12-12 12:00 G	22497860.88	22497861.00	22497861.12	0.1701	0.0022
Mercury	56894-05-04 21:50 G	22501291.30	22501291.41	22501291.51	0.1696	0.0939
Mercury	56897-02-01 15:36 G	22502295.04	22502295.15	22502295.25	0.1820	0.1297
Mercury	56906-06-25 14:38 G	22505724.96	22505725.11	22505725.26	0.1827	0.0575
Venus	56913-09-19 00:00 G	22508367.35	22508367.50	22508367.66	0.1915	0.0887
Mercury	56915-01-22 02:10 G	22508857.50	22508857.59	22508857.68	0.1707	0.1098
Mercury	56924-06-13 12:00 G	22512287.88	22512288.00	22512288.12	0.1701	0.0152
Mercury	56933-11-03 21:36 G	22515718.30	22515718.40	22515718.51	0.1695	0.0806
Mercury	56936-08-03 15:50 G	22516722.07	22516722.16	22516722.24	0.1820	0.1499
Mercury	56945-12-24 15:22 G	22520151.99	22520152.14	22520152.29	0.1827	0.0329
Venus	56946-08-17 21:22 G	22520388.22	22520388.39	22520388.56	0.1610	0.0213

Mercury	56954-07-23 02:10 G	22523284.51	22523284.59	22523284.67	0.1707	0.1240
Mercury	56963-12-13 12:00 G	22526714.88	22526715.00	22526715.12	0.1701	0.0293
Mercury	56973-05-04 21:50 G	22530145.30	22530145.41	22530145.52	0.1695	0.0655
Mercury	56976-02-02 16:19 G	22531149.14	22531149.18	22531149.23	0.1820	0.1739
Venus	56979-07-17 02:24 G	22532409.42	22532409.60	22532409.78	0.1915	0.0035
Mercury	56982-09-25 07:26 G	22533575.78	22533575.81	22533575.85	0.1690	0.1600
Mercury	56985-06-24 15:36 G	22534578.99	22534579.15	22534579.30	0.1827	0.0144
Mercury	56994-01-21 02:10 G	22537711.52	22537711.59	22537711.66	0.1706	0.1375

58TH MILLENNIUM CE

This is a list of transits visible from Mars in the 58th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	57003-06-14 12:00 G		22541141.88	22541142.00	22541142.12	0.1701	0.0431	
Venus	57012-06-15 10:19 G		22544430.75	22544430.93	22544431.10	0.1610	0.0044	
Mercury	57012-11-03 21:50 G		22544572.29	22544572.41	22544572.53	0.1696	0.0511	
Mercury	57022-03-27 07:41 G		22548002.76	22548002.82	22548002.88	0.1690	0.1452	
Mercury	57024-12-24 16:05 G		22549006.02	22549006.17	22549006.33	0.1827	0.0109	
Mercury	57033-07-23 02:10 G		22552138.54	22552138.59	22552138.65	0.1706	0.1516	
Mercury	57034-05-16 15:36 G		22552436.11	22552436.15	22552436.19	0.1834	0.1760	
Moon	57039-01-25 20:38 G		22554151.17	22554151.36	22554151.55	0.1655	0.0186	
Earth	57039-01-26 02:24 G		22554151.42	22554151.60	22554151.78	0.1656	0.0384	*
Mercury	57042-12-13 12:00 G		22555568.89	22555569.00	22555569.12	0.1701	0.0577	
Venus	57045-05-14 03:22 G		22556451.50	22556451.64	22556451.79	0.1915	0.1017	

Mercury	57052-05-04 21:50 G	22558999.29	22558999.41	22558999.53	0.1695	0.0373
Mercury	57061-09-25 07:41 G	22562429.74	22562429.82	22562429.89	0.1690	0.1310
Mercury	57064-06-24 16:48 G	22563433.04	22563433.20	22563433.35	0.1827	0.0328
Mercury	57073-01-21 02:24 G	22566565.57	22566565.60	22566565.62	0.1707	0.1661
Mercury	57073-11-14 16:05 G	22566863.09	22566863.17	22566863.25	0.1833	0.1536
Venus	57078-04-12 23:17 G	22568473.30	22568473.47	22568473.64	0.1611	0.0267
Mercury	57082-06-13 12:00 G	22569995.90	22569996.00	22569996.11	0.1701	0.0720
Mercury	57091-11-03 21:50 G	22573426.29	22573426.41	22573426.53	0.1695	0.0230
Mercury	57101-03-27 07:41 G	22576856.73	22576856.82	22576856.91	0.1690	0.1166
Mercury	57103-12-25 17:02 G	22577860.06	22577860.21	22577860.36	0.1827	0.0527
Mercury	57113-05-16 16:34 G	22581290.08	22581290.19	22581290.30	0.1834	0.1313
Mercury	57121-12-13 12:14 G	22584422.90	22584423.01	22584423.11	0.1701	0.0857
Mercury	57131-05-05 22:05 G	22587853.29	22587853.42	22587853.54	0.1696	0.0101
Mercury	57140-09-25 07:41 G	22591283.73	22591283.82	22591283.92	0.1690	0.1024
Mercury	57143-06-25 17:31 G	22592287.09	22592287.23	22592287.37	0.1827	0.0755
Venus	57144-02-09 12:00 G	22592515.84	22592516.00	22592516.16	0.1611	0.0515
Mercury	57152-11-14 17:02 G	22595717.09	22595717.21	22595717.33	0.1833	0.1092
Mercury	57161-06-13 12:14 G	22598849.91	22598850.01	22598850.10	0.1701	0.0998
Mercury	57170-11-03 21:50 G	22602280.29	22602280.41	22602280.54	0.1695	0.0066
Mercury	57180-03-26 07:55 G	22605710.72	22605710.83	22605710.93	0.1690	0.0876
Mercury	57182-12-24 18:14 G	22606714.13	22606714.26	22606714.39	0.1826	0.1000
Mercury	57192-05-15 17:31 G	22610144.09	22610144.23	22610144.36	0.1833	0.0885
Mercury	57200-12-12 12:14 G	22613276.92	22613277.01	22613277.10	0.1701	0.1137
Venus	57209-12-07 01:12 G	22616558.40	22616558.55	22616558.70	0.1611	0.0745
Mercury	57210-05-04 22:05 G	22616707.30	22616707.42	22616707.54	0.1696	0.0202
Mercury	57219-09-25 07:55 G	22620137.72	22620137.83	22620137.94	0.1690	0.0738
Mercury	57222-06-24 18:29 G	22621141.15	22621141.27	22621141.38	0.1827	0.1188
Mercury	57229-02-14 17:31 G	22623568.22	22623568.23	22623568.24	0.1685	0.1672
Mercury	57231-11-14 18:00 G	22624571.11	22624571.25	22624571.40	0.1834	0.0645
Mercury	57240-06-12 12:14 G	22627703.93	22627704.01	22627704.09	0.1701	0.1277

Venus	57241-12-05 16:19 G	22628245.10	22628245.18	22628245.26	0.1611	0.1412
Earth	57244-01-26 02:53 G	22629026.50	22629026.62	22629026.75	0.1649	0.1213
Moon	57244-01-26 07:41 G	22629026.69	22629026.82	22629026.96	0.1649	0.1077 *
Mercury	57249-11-02 22:05 G	22631134.30	22631134.42	22631134.54	0.1696	0.0344
Mercury	57259-03-26 07:55 G	22634564.72	22634564.83	22634564.94	0.1690	0.0591
Mercury	57261-12-23 19:12 G	22635568.20	22635568.30	22635568.39	0.1827	0.1429
Mercury	57268-08-15 17:31 G	22637995.19	22637995.23	22637995.28	0.1685	0.1526
Mercury	57271-05-15 18:14 G	22638998.11	22638998.26	22638998.41	0.1833	0.0445
Venus	57274-11-03 11:17 G	22640265.83	22640265.97	22640266.12	0.1914	0.1077
Venus	57275-10-04 13:55 G	22640600.95	22640601.08	22640601.22	0.1611	0.0991
Mercury	57279-12-12 12:14 G	22642130.95	22642131.01	22642131.08	0.1701	0.1419
Mercury	57289-05-03 22:05 G	22645561.30	22645561.42	22645561.54	0.1696	0.0479
Mercury	57298-09-24 07:55 G	22648991.71	22648991.83	22648991.95	0.1690	0.0449
Mercury	57301-06-24 19:41 G	22649995.26	22649995.32	22649995.38	0.1826	0.1656
Venus	57307-10-04 05:31 G	22652287.61	22652287.73	22652287.85	0.1611	0.1176
Mercury	57308-02-15 17:46 G	22652422.17	22652422.24	22652422.31	0.1685	0.1378
Mercury	57310-11-14 18:58 G	22653425.14	22653425.29	22653425.44	0.1833	0.0214
Mercury	57319-06-13 12:14 G	22656557.97	22656558.01	22656558.06	0.1701	0.1558
Moon	57323-01-29 03:36 G	22657883.52	22657883.65	22657883.79	0.1652	0.1038
Earth	57323-01-29 06:29 G	22657883.64	22657883.77	22657883.90	0.1652	0.1169 *
Mercury	57328-11-02 22:05 G	22659988.31	22659988.42	22659988.54	0.1695	0.0624
Mercury	57338-03-26 07:55 G	22663418.71	22663418.83	22663418.95	0.1690	0.0309
Venus	57340-08-31 12:43 G	22664307.86	22664308.03	22664308.21	0.1914	0.0128
Venus	57341-08-02 02:53 G	22664643.51	22664643.62	22664643.73	0.1612	0.1227
Mercury	57347-08-16 17:46 G	22666849.16	22666849.24	22666849.32	0.1685	0.1239
Mercury	57350-05-15 19:26 G	22667852.16	22667852.31	22667852.47	0.1834	0.0033
Mercury	57358-12-12 12:14 G	22670985.01	22670985.01	22670985.02	0.1701	0.1696
Mercury	57359-10-05 18:58 G	22671282.29	22671282.29	22671282.30	0.1840	0.1836
Mercury	57368-05-03 22:19 G	22674415.32	22674415.43	22674415.53	0.1696	0.0770
Venus	57373-07-31 18:14 G	22676330.12	22676330.26	22676330.40	0.1611	0.0934

Mercury	57377-09-24 08:10 G	22677845.71	22677845.84	22677845.96	0.1690	0.0175
Mercury	57387-02-14 17:46 G	22681276.15	22681276.24	22681276.34	0.1685	0.1091
Mercury	57389-11-13 19:55 G	22682279.18	22682279.33	22682279.48	0.1833	0.0229
Mercury	57399-04-05 19:12 G	22685709.23	22685709.30	22685709.37	0.1840	0.1640
Venus	57406-06-29 15:22 G	22688349.98	22688350.14	22688350.30	0.1913	0.0790
Venus	57407-05-31 15:50 G	22688686.09	22688686.16	22688686.23	0.1612	0.1469
Mercury	57407-11-03 22:05 G	22688842.32	22688842.42	22688842.53	0.1696	0.0902
Earth	57408-08-01 10:48 G	22689113.77	22689113.95	22689114.14	0.1876	0.0762
Moon	57408-08-01 17:17 G	22689114.05	22689114.22	22689114.38	0.1876	0.1155 *
Mercury	57417-03-26 08:10 G	22692272.72	22692272.84	22692272.96	0.1690	0.0018
Mercury	57426-08-16 17:46 G	22695703.14	22695703.24	22695703.35	0.1685	0.0950
Mercury	57429-05-15 20:24 G	22696706.20	22696706.35	22696706.50	0.1833	0.0442
Mercury	57438-10-05 19:55 G	22700136.23	22700136.33	22700136.43	0.1840	0.1400
Venus	57439-05-30 07:26 G	22700372.65	22700372.81	22700372.96	0.1611	0.0697
Mercury	57447-05-04 22:19 G	22703269.34	22703269.43	22703269.53	0.1696	0.1048
Mercury	57456-09-24 08:10 G	22706699.72	22706699.84	22706699.96	0.1690	0.0123
Mercury	57466-02-14 18:00 G	22710130.14	22710130.25	22710130.35	0.1685	0.0808
Mercury	57468-11-13 21:07 G	22711133.23	22711133.38	22711133.52	0.1833	0.0689
Venus	57472-04-25 16:34 G	22712392.12	22712392.19	22712392.26	0.1913	0.1755
Mercury	57478-04-05 20:24 G	22714563.23	22714563.35	22714563.46	0.1840	0.1185
Mercury	57486-11-02 22:19 G	22717696.35	22717696.43	22717696.52	0.1696	0.1187
Mercury	57496-03-25 08:10 G	22721126.72	22721126.84	22721126.96	0.1690	0.0264
Venus	57505-03-27 20:24 G	22724415.18	22724415.35	22724415.51	0.1612	0.0460
Mercury	57505-08-16 18:00 G	22724557.14	22724557.25	22724557.36	0.1685	0.0662
Mercury	57508-05-15 21:22 G	22725560.25	22725560.39	22725560.52	0.1833	0.0885
Mercury	57515-01-07 03:36 G	22727987.62	22727987.65	22727987.69	0.1680	0.1592
Mercury	57517-10-05 20:38 G	22728990.23	22728990.36	22728990.49	0.1840	0.0977
Mercury	57526-05-04 22:19 G	22732123.36	22732123.43	22732123.51	0.1696	0.1322
Earth	57528-01-30 07:41 G	22732758.64	22732758.82	22732759.00	0.1645	0.0404
Moon	57528-01-30 10:19 G	22732758.73	22732758.93	22732759.12	0.1645	0.0263 *

Mercury	57535-09-25 08:10 G	22735553.73	22735553.84	22735553.96	0.1690	0.0407
Mercury	57545-02-14 18:00 G	22738984.14	22738984.25	22738984.37	0.1685	0.0519
Mercury	57547-11-14 21:50 G	22739987.29	22739987.41	22739987.53	0.1833	0.1114
Mercury	57554-07-08 03:50 G	22742414.60	22742414.66	22742414.72	0.1680	0.1445
Mercury	57557-04-05 21:07 G	22743417.24	22743417.38	22743417.52	0.1840	0.0750
Mercury	57565-11-02 22:19 G	22746550.38	22746550.43	22746550.49	0.1696	0.1464
Venus	57571-01-23 09:07 G	22748457.71	22748457.88	22748458.05	0.1612	0.0214
Mercury	57575-03-26 08:10 G	22749980.73	22749980.84	22749980.96	0.1690	0.0545
Mercury	57584-08-15 18:00 G	22753411.13	22753411.25	22753411.37	0.1685	0.0383
Mercury	57587-05-15 22:19 G	22754414.33	22754414.43	22754414.54	0.1833	0.1349
Mercury	57594-01-06 03:50 G	22756841.59	22756841.66	22756841.74	0.1680	0.1298
Mercury	57596-10-04 21:36 G	22757844.26	22757844.40	22757844.55	0.1840	0.0531
Mercury	57605-05-03 22:34 G	22760977.40	22760977.44	22760977.47	0.1696	0.1608
Mercury	57614-09-24 08:24 G	22764407.74	22764407.85	22764407.96	0.1690	0.0684
Mercury	57624-02-14 18:14 G	22767838.14	22767838.26	22767838.38	0.1685	0.0238
Mercury	57626-11-13 22:48 G	22768841.37	22768841.45	22768841.53	0.1833	0.1553
Mercury	57633-07-07 03:50 G	22771268.57	22771268.66	22771268.75	0.1680	0.1163
Venus	57635-12-19 21:50 G	22772164.28	22772164.41	22772164.55	0.1913	0.1247
Mercury	57636-04-04 22:05 G	22772271.27	22772271.42	22772271.57	0.1840	0.0325
Venus	57636-11-19 22:19 G	22772500.25	22772500.43	22772500.60	0.1612	0.0027
Mercury	57654-03-25 08:24 G	22778834.74	22778834.85	22778834.96	0.1690	0.0827
Mercury	57663-08-15 18:14 G	22782265.14	22782265.26	22782265.38	0.1685	0.0098
Mercury	57666-05-14 23:17 G	22783268.43	22783268.47	22783268.51	0.1833	0.1768
Mercury	57673-01-05 04:05 G	22785695.57	22785695.67	22785695.77	0.1680	0.1013
Mercury	57675-10-04 22:34 G	22786698.29	22786698.44	22786698.60	0.1840	0.0100
Moon	57692-08-01 06:00 G	22792843.65	22792843.75	22792843.85	0.1883	0.1598
Earth	57692-08-01 15:22 G	22792843.98	22792844.14	22792844.30	0.1883	0.1129
Mercury	57693-09-23 08:24 G	22793261.75	22793261.85	22793261.95	0.1690	0.0958
Venus	57701-10-17 00:29 G	22796206.35	22796206.52	22796206.69	0.1912	0.0343
Venus	57702-09-18 11:02 G	22796542.79	22796542.96	22796543.13	0.1613	0.0266

Mercury	57703-02-14 18:14 G	22796692.14	22796692.26	22796692.38	0.1685	0.0047
Mercury	57712-07-07 04:05 G	22800122.57	22800122.67	22800122.78	0.1680	0.0869
Mercury	57715-04-05 23:02 G	22801125.31	22801125.46	22801125.62	0.1840	0.0126
Mercury	57724-08-25 22:34 G	22804555.39	22804555.44	22804555.49	0.1846	0.1730
Mercury	57733-03-25 08:24 G	22807688.76	22807688.85	22807688.94	0.1690	0.1103
Mercury	57742-08-15 18:14 G	22811119.14	22811119.26	22811119.38	0.1685	0.0191
Mercury	57752-01-06 04:05 G	22814549.56	22814549.67	22814549.78	0.1680	0.0734
Mercury	57754-10-04 23:31 G	22815552.33	22815552.48	22815552.63	0.1840	0.0338
Mercury	57761-05-28 13:55 G	22817980.06	22817980.08	22817980.10	0.1676	0.1647
Mercury	57764-02-24 23:17 G	22818982.38	22818982.47	22818982.56	0.1846	0.1493
Venus	57767-08-14 01:55 G	22820248.42	22820248.58	22820248.75	0.1911	0.0604
Venus	57768-07-15 23:46 G	22820585.33	22820585.49	22820585.66	0.1614	0.0504
Mercury	57772-09-23 08:24 G	22822115.77	22822115.85	22822115.94	0.1690	0.1244
Mercury	57782-02-13 18:29 G	22825546.14	22825546.27	22825546.39	0.1685	0.0335
Mercury	57791-07-07 04:05 G	22828976.56	22828976.67	22828976.79	0.1680	0.0592
Mercury	57794-04-05 00:00 G	22829979.35	22829979.50	22829979.65	0.1840	0.0562
Mercury	57800-11-27 13:55 G	22832407.03	22832407.08	22832407.13	0.1675	0.1506
Mercury	57803-08-26 23:17 G	22833409.37	22833409.47	22833409.58	0.1846	0.1308
Moon	57812-02-02 06:29 G	22836490.59	22836490.77	22836490.95	0.1641	0.0406
Earth	57812-02-02 12:58 G	22836490.86	22836491.04	22836491.22	0.1642	0.0410 *
Mercury	57812-03-25 08:24 G	22836542.79	22836542.85	22836542.92	0.1690	0.1377
Mercury	57821-08-15 18:29 G	22839973.15	22839973.27	22839973.38	0.1685	0.0467
Mercury	57831-01-06 04:19 G	22843403.56	22843403.68	22843403.80	0.1680	0.0446
Venus	57833-06-11 04:19 G	22844290.57	22844290.68	22844290.78	0.1910	0.1520
Mercury	57833-10-05 00:29 G	22844406.38	22844406.52	22844406.66	0.1839	0.0781
Venus	57834-05-14 12:43 G	22844627.88	22844628.03	22844628.18	0.1614	0.0749
Mercury	57840-05-28 13:55 G	22846834.01	22846834.08	22846834.15	0.1675	0.1361
Mercury	57843-02-25 00:00 G	22847836.38	22847836.50	22847836.62	0.1846	0.1076
Mercury	57851-09-24 08:38 G	22850969.80	22850969.86	22850969.91	0.1690	0.1515
Mercury	57861-02-13 18:29 G	22854400.16	22854400.27	22854400.38	0.1685	0.0607

Venus	57866-05-13 04:19 G	22856314.60	22856314.68	22856314.76	0.1613	0.1420
Mercury	57870-07-07 04:19 G	22857830.56	22857830.68	22857830.80	0.1680	0.0315
Mercury	57873-04-05 00:58 G	22858833.41	22858833.54	22858833.67	0.1840	0.0993
Mercury	57879-11-27 13:55 G	22861261.00	22861261.08	22861261.17	0.1676	0.1221
Mercury	57882-08-26 00:29 G	22862263.39	22862263.52	22862263.66	0.1846	0.0850
Mercury	57891-03-25 08:38 G	22865396.84	22865396.86	22865396.88	0.1690	0.1656
Venus	57900-03-12 01:26 G	22868670.42	22868670.56	22868670.69	0.1615	0.0997
Mercury	57900-08-15 18:29 G	22868827.16	22868827.27	22868827.38	0.1685	0.0745
Mercury	57910-01-06 04:19 G	22872257.56	22872257.68	22872257.80	0.1680	0.0166
Mercury	57912-10-05 01:26 G	22873260.44	22873260.56	22873260.67	0.1840	0.1219
Mercury	57919-05-29 13:55 G	22875687.99	22875688.08	22875688.18	0.1675	0.1082
Mercury	57922-02-25 00:43 G	22876690.39	22876690.53	22876690.67	0.1846	0.0659
Venus	57932-03-10 17:02 G	22880357.09	22880357.21	22880357.33	0.1613	0.1178
Mercury	57940-02-14 18:29 G	22883254.17	22883254.27	22883254.38	0.1685	0.0885
Mercury	57949-07-07 04:19 G	22886684.56	22886684.68	22886684.81	0.1680	0.0038
Mercury	57952-04-05 01:55 G	22887687.48	22887687.58	22887687.67	0.1839	0.1431
Mercury	57958-11-27 14:10 G	22890114.99	22890115.09	22890115.19	0.1675	0.0938
Mercury	57961-08-26 01:12 G	22891117.40	22891117.55	22891117.70	0.1846	0.0436
Venus	57966-01-07 14:10 G	22892712.98	22892713.09	22892713.20	0.1615	0.1243
Mercury	57979-08-15 18:29 G	22897681.18	22897681.27	22897681.37	0.1685	0.1021
Mercury	57989-01-05 04:19 G	22901111.56	22901111.68	22901111.81	0.1680	0.0115
Mercury	57991-10-05 02:10 G	22902114.53	22902114.59	22902114.66	0.1840	0.1647
Venus	57997-02-03 09:22 G	22904062.78	22904062.89	22904063.00	0.1911	0.1459
Venus	57998-01-06 05:46 G	22904399.60	22904399.74	22904399.88	0.1614	0.0932
Mercury	57998-05-28 14:10 G	22904541.98	22904542.09	22904542.20	0.1676	0.0794

59TH MILLENNIUM CE

This is a list of transits visible from Mars in the 59th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	58001-02-24 01:55	G	22905544.43	22905544.58	22905544.73	0.1846	0.0202	
Earth	58017-02-01 15:50	G	22911366.02	22911366.16	22911366.30	0.1636	0.1077	
Moon	58017-02-01 22:34	G	22911366.30	22911366.44	22911366.58	0.1637	0.1068	*
Mercury	58019-02-13 18:43	G	22912108.19	22912108.28	22912108.36	0.1685	0.1161	
Mercury	58028-07-06 04:34	G	22915538.56	22915538.69	22915538.81	0.1680	0.0259	
Venus	58031-11-05 03:07	G	22916755.57	22916755.63	22916755.69	0.1616	0.1489	
Mercury	58037-11-26 14:10	G	22918968.98	22918969.09	22918969.21	0.1675	0.0658	
Mercury	58040-08-25 01:55	G	22919971.43	22919971.58	22919971.74	0.1846	0.0027	
Mercury	58047-04-19 00:00	G	22922399.46	22922399.50	22922399.54	0.1671	0.1564	
Mercury	58050-01-15 01:55	G	22923401.56	22923401.58	22923401.60	0.1852	0.1831	
Mercury	58058-08-14 18:43	G	22926535.20	22926535.28	22926535.35	0.1685	0.1295	
Venus	58062-12-01 10:48	G	22928104.78	22928104.95	22928105.12	0.1910	0.0497	
Venus	58063-11-03 18:58	G	22928442.13	22928442.29	22928442.44	0.1614	0.0698	
Mercury	58068-01-05 04:34	G	22929965.57	22929965.69	22929965.81	0.1680	0.0395	
Mercury	58077-05-27 14:24	G	22933395.98	22933396.10	22933396.21	0.1675	0.0518	
Mercury	58080-02-24 02:38	G	22934398.45	22934398.61	22934398.76	0.1846	0.0217	
Mercury	58086-10-18 00:00	G	22936826.44	22936826.50	22936826.56	0.1671	0.1423	
Mercury	58089-07-16 01:55	G	22937828.52	22937828.58	22937828.65	0.1852	0.1643	
Earth	58096-02-04 17:31	G	22940223.10	22940223.23	22940223.36	0.1638	0.1196	
Moon	58096-02-04 19:12	G	22940223.22	22940223.30	22940223.39	0.1638	0.1403	*
Mercury	58098-02-12 18:43	G	22940962.22	22940962.28	22940962.34	0.1685	0.1433	
Mercury	58107-07-07 04:34	G	22944392.57	22944392.69	22944392.80	0.1680	0.0526	

Mercury	58116-11-26 14:24 G	22947822.98	22947823.10	22947823.22	0.1676	0.0377
Mercury	58119-08-26 03:07 G	22948825.48	22948825.63	22948825.78	0.1846	0.0437
Mercury	58126-04-19 00:14 G	22951253.43	22951253.51	22951253.58	0.1671	0.1279
Venus	58128-09-28 13:12 G	22952146.88	22952147.05	22952147.22	0.1909	0.0402
Mercury	58129-01-15 02:38 G	22952255.51	22952255.61	22952255.70	0.1852	0.1423
Venus	58129-09-01 07:26 G	22952484.64	22952484.81	22952484.98	0.1615	0.0444
Mercury	58137-08-14 18:43 G	22955389.24	22955389.28	22955389.32	0.1685	0.1568
Mercury	58147-01-05 04:34 G	22958819.58	22958819.69	22958819.80	0.1680	0.0667
Mercury	58156-05-27 14:24 G	22962249.98	22962250.10	22962250.22	0.1675	0.0242
Mercury	58159-02-24 03:22 G	22963252.49	22963252.64	22963252.78	0.1846	0.0630
Mercury	58165-10-18 00:14 G	22965680.42	22965680.51	22965680.60	0.1671	0.1142
Mercury	58168-07-16 03:07 G	22966682.51	22966682.63	22966682.74	0.1852	0.1198
Mercury	58186-07-06 04:34 G	22973246.59	22973246.69	22973246.80	0.1680	0.0806
Venus	58194-07-26 14:53 G	22976189.00	22976189.12	22976189.25	0.1908	0.1337
Venus	58195-06-29 20:10 G	22976527.17	22976527.34	22976527.51	0.1616	0.0203
Mercury	58195-11-26 14:24 G	22976676.98	22976677.10	22976677.22	0.1675	0.0099
Mercury	58198-08-25 03:50 G	22977679.52	22977679.66	22977679.80	0.1846	0.0855
Mercury	58205-04-19 00:14 G	22980107.41	22980107.51	22980107.61	0.1671	0.0997
Mercury	58208-01-16 03:22 G	22981109.51	22981109.64	22981109.77	0.1852	0.0999
Mercury	58226-01-05 04:34 G	22987673.59	22987673.69	22987673.79	0.1680	0.0938
Mercury	58235-05-28 14:24 G	22991103.98	22991104.10	22991104.23	0.1676	0.0072
Mercury	58238-02-24 04:19 G	22992106.56	22992106.68	22992106.81	0.1846	0.1085
Mercury	58244-10-18 00:14 G	22994534.41	22994534.51	22994534.62	0.1671	0.0859
Mercury	58247-07-17 03:36 G	22995536.52	22995536.65	22995536.79	0.1852	0.0795
Venus	58261-04-27 08:53 G	23000569.70	23000569.87	23000570.04	0.1616	0.0050
Mercury	58265-07-06 04:48 G	23002100.60	23002100.70	23002100.79	0.1680	0.1079
Mercury	58274-11-26 14:24 G	23005530.98	23005531.10	23005531.23	0.1675	0.0177
Mercury	58277-08-25 04:34 G	23006533.58	23006533.69	23006533.80	0.1846	0.1268
Mercury	58284-04-18 00:14 G	23008961.40	23008961.51	23008961.63	0.1671	0.0722
Mercury	58287-01-15 04:19 G	23009963.54	23009963.68	23009963.83	0.1852	0.0556

Mercury	58293-09-08 10:05 G	23012391.89	23012391.92	23012391.94	0.1666	0.1618
Moon	58301-02-05 20:53 G	23015098.17	23015098.37	23015098.56	0.1633	0.0405
Earth	58301-02-05 21:22 G	23015098.21	23015098.39	23015098.57	0.1633	0.0264 *
Mercury	58305-01-05 04:48 G	23016527.61	23016527.70	23016527.78	0.1680	0.1216
Mercury	58314-05-28 14:38 G	23019957.99	23019958.11	23019958.23	0.1675	0.0319
Mercury	58317-02-24 05:02 G	23020960.63	23020960.71	23020960.80	0.1846	0.1503
Mercury	58323-10-19 00:29 G	23023388.40	23023388.52	23023388.63	0.1671	0.0583
Mercury	58326-07-17 04:34 G	23024390.54	23024390.69	23024390.84	0.1852	0.0373
Venus	58327-02-23 21:22 G	23024612.22	23024612.39	23024612.56	0.1617	0.0303
Mercury	58333-03-10 10:05 G	23026818.87	23026818.92	23026818.97	0.1666	0.1481
Earth	58339-08-10 03:07 G	23029162.43	23029162.63	23029162.83	0.1891	0.0321
Moon	58339-08-10 12:58 G	23029162.87	23029163.04	23029163.21	0.1891	0.1080
Mercury	58344-07-06 04:48 G	23030954.62	23030954.70	23030954.77	0.1680	0.1346
Mercury	58353-11-26 14:38 G	23034384.99	23034385.11	23034385.23	0.1676	0.0455
Mercury	58356-08-25 05:31 G	23035387.68	23035387.73	23035387.79	0.1846	0.1719
Venus	58358-03-21 19:55 G	23035961.24	23035961.33	23035961.42	0.1909	0.1631
Mercury	58363-04-19 00:29 G	23037815.40	23037815.52	23037815.64	0.1671	0.0438
Mercury	58366-01-15 05:02 G	23038817.56	23038817.71	23038817.86	0.1852	0.0148
Mercury	58372-09-08 10:05 G	23041245.85	23041245.92	23041246.00	0.1666	0.1339
Mercury	58384-01-05 04:48 G	23045381.64	23045381.70	23045381.75	0.1680	0.1484
Venus	58392-12-21 10:19 G	23048654.76	23048654.93	23048655.09	0.1618	0.0553
Mercury	58393-05-27 14:38 G	23048811.99	23048812.11	23048812.22	0.1675	0.0588
Mercury	58402-10-18 00:29 G	23052242.40	23052242.52	23052242.64	0.1671	0.0304
Mercury	58405-07-16 05:31 G	23053244.58	23053244.73	23053244.88	0.1852	0.0077
Mercury	58412-03-09 10:19 G	23055672.84	23055672.93	23055673.01	0.1666	0.1197
Mercury	58414-12-06 05:17 G	23056674.67	23056674.72	23056674.76	0.1858	0.1776
Mercury	58423-07-06 04:48 G	23059808.67	23059808.70	23059808.73	0.1680	0.1620
Venus	58424-01-16 21:50 G	23060003.24	23060003.41	23060003.57	0.1908	0.0700
Mercury	58432-11-25 14:38 G	23063239.00	23063239.11	23063239.22	0.1675	0.0728
Mercury	58442-04-18 00:29 G	23066669.40	23066669.52	23066669.65	0.1671	0.0165

Mercury	58445-01-14 05:46 G	23067671.59	23067671.74	23067671.89	0.1852	0.0270
Mercury	58451-09-08 10:19 G	23070099.83	23070099.93	23070100.02	0.1666	0.1065
Mercury	58454-06-06 05:31 G	23071101.65	23071101.73	23071101.80	0.1858	0.1581
Venus	58458-10-18 23:02 G	23072697.31	23072697.46	23072697.61	0.1619	0.0804
Mercury	58472-05-26 14:38 G	23077666.01	23077666.11	23077666.22	0.1676	0.0869
Mercury	58481-10-17 00:29 G	23081096.40	23081096.52	23081096.65	0.1671	0.0057
Mercury	58484-07-15 06:14 G	23082098.61	23082098.76	23082098.90	0.1852	0.0480
Venus	58489-11-12 23:31 G	23084045.30	23084045.48	23084045.65	0.1906	0.0249
Venus	58490-10-17 14:53 G	23084384.04	23084384.12	23084384.21	0.1617	0.1395
Mercury	58491-03-09 10:19 G	23084526.83	23084526.93	23084527.03	0.1666	0.0918
Mercury	58493-12-05 06:00 G	23085528.65	23085528.75	23085528.85	0.1858	0.1353
Moon	58506-02-06 02:10 G	23089973.54	23089973.59	23089973.64	0.1629	0.1541
Mercury	58511-11-26 14:38 G	23092093.01	23092093.11	23092093.21	0.1675	0.0995
Mercury	58521-04-18 00:43 G	23095523.40	23095523.53	23095523.65	0.1671	0.0121
Mercury	58524-01-15 06:58 G	23096525.65	23096525.79	23096525.93	0.1852	0.0722
Venus	58524-08-16 11:31 G	23096739.85	23096739.98	23096740.11	0.1620	0.1056
Mercury	58530-09-08 10:19 G	23098953.82	23098953.93	23098954.04	0.1666	0.0779
Mercury	58533-06-06 06:14 G	23099955.64	23099955.76	23099955.88	0.1858	0.1153
Mercury	58551-05-27 14:53 G	23106520.03	23106520.12	23106520.21	0.1675	0.1137
Venus	58555-09-11 01:55 G	23108087.44	23108087.58	23108087.72	0.1905	0.1132
Venus	58556-08-15 03:22 G	23108426.52	23108426.64	23108426.76	0.1617	0.1137
Mercury	58560-10-17 00:43 G	23109950.41	23109950.53	23109950.65	0.1671	0.0251
Mercury	58563-07-16 06:58 G	23110952.66	23110952.79	23110952.92	0.1852	0.0901
Mercury	58570-03-09 10:19 G	23113380.82	23113380.93	23113381.05	0.1666	0.0645
Mercury	58572-12-05 06:43 G	23114382.65	23114382.78	23114382.91	0.1858	0.0939
Mercury	58579-07-30 20:10 G	23116811.30	23116811.34	23116811.39	0.1662	0.1532
Moon	58585-02-07 21:36 G	23118830.22	23118830.40	23118830.58	0.1631	0.0259
Earth	58585-02-08 02:38 G	23118830.44	23118830.61	23118830.79	0.1631	0.0544 *
Venus	58590-06-14 00:14 G	23120782.41	23120782.51	23120782.61	0.1621	0.1313
Mercury	58590-11-25 14:53 G	23120947.04	23120947.12	23120947.20	0.1676	0.1273

Mercury	58600-04-18 00:43 G	23124377.41	23124377.53	23124377.65	0.1671	0.0389
Mercury	58603-01-15 07:26 G	23125379.69	23125379.81	23125379.93	0.1852	0.1126
Mercury	58609-09-08 10:34 G	23127807.82	23127807.94	23127808.06	0.1666	0.0504
Mercury	58612-06-06 06:58 G	23128809.66	23128809.79	23128809.93	0.1858	0.0734
Mercury	58619-01-29 20:10 G	23131238.28	23131238.34	23131238.41	0.1662	0.1393
Venus	58622-06-13 16:19 G	23132469.03	23132469.18	23132469.32	0.1618	0.0898
Mercury	58630-05-27 14:53 G	23135374.06	23135374.12	23135374.18	0.1675	0.1403
Mercury	58639-10-18 00:43 G	23138804.41	23138804.53	23138804.65	0.1671	0.0522
Mercury	58642-07-16 08:10 G	23139806.73	23139806.84	23139806.94	0.1852	0.1352
Mercury	58649-03-09 10:34 G	23142234.82	23142234.94	23142235.06	0.1666	0.0361
Mercury	58651-12-06 07:26 G	23143236.67	23143236.81	23143236.96	0.1858	0.0519
Venus	58656-04-11 12:58 G	23144824.99	23144825.04	23144825.08	0.1622	0.1562
Mercury	58658-07-30 20:24 G	23145665.27	23145665.35	23145665.43	0.1662	0.1251
Mercury	58669-11-25 14:53 G	23149801.08	23149801.12	23149801.17	0.1675	0.1540
Mercury	58679-04-18 00:43 G	23153231.42	23153231.53	23153231.65	0.1671	0.0662
Mercury	58682-01-14 08:10 G	23154233.76	23154233.84	23154233.93	0.1852	0.1544
Venus	58688-04-10 04:48 G	23156511.54	23156511.70	23156511.85	0.1619	0.0642
Mercury	58688-09-07 10:34 G	23156661.82	23156661.94	23156662.06	0.1666	0.0229
Mercury	58691-06-06 07:55 G	23157663.68	23157663.83	23157663.98	0.1858	0.0310
Mercury	58698-01-28 20:24 G	23160092.26	23160092.35	23160092.44	0.1662	0.1109
Mercury	58718-10-18 00:58 G	23167658.43	23167658.54	23167658.64	0.1671	0.0798
Venus	58719-05-07 06:58 G	23167859.74	23167859.79	23167859.84	0.1906	0.1823
Mercury	58721-07-16 08:53 G	23168660.82	23168660.87	23168660.91	0.1852	0.1759
Mercury	58728-03-09 10:48 G	23171088.82	23171088.95	23171089.07	0.1666	0.0097
Mercury	58730-12-06 08:24 G	23172090.70	23172090.85	23172091.00	0.1858	0.0090
Mercury	58737-07-30 20:24 G	23174519.25	23174519.35	23174519.45	0.1662	0.0976
Venus	58754-02-06 17:17 G	23180554.05	23180554.22	23180554.39	0.1620	0.0391
Mercury	58758-04-18 00:58 G	23182085.44	23182085.54	23182085.64	0.1671	0.0934
Mercury	58767-09-08 10:48 G	23185515.82	23185515.95	23185516.07	0.1666	0.0064
Mercury	58770-06-06 08:38 G	23186517.71	23186517.86	23186518.01	0.1858	0.0113

Mercury	58777-01-28 20:38 G	23188946.25	23188946.36	23188946.46	0.1662	0.0832
Mercury	58779-10-27 08:24 G	23189947.80	23189947.85	23189947.91	0.1864	0.1718
Venus	58785-03-03 08:53 G	23191901.72	23191901.87	23191902.03	0.1905	0.0903
Earth	58790-02-09 07:12 G	23193705.65	23193705.80	23193705.96	0.1627	0.0854
Moon	58790-02-09 13:26 G	23193705.89	23193706.06	23193706.24	0.1627	0.0597 *
Mercury	58797-10-17 00:58 G	23196512.45	23196512.54	23196512.63	0.1671	0.1067
Mercury	58807-03-09 10:48 G	23199942.83	23199942.95	23199943.07	0.1666	0.0186
Mercury	58809-12-05 09:07 G	23200944.73	23200944.88	23200945.03	0.1858	0.0336
Mercury	58816-07-29 20:38 G	23203373.25	23203373.36	23203373.47	0.1662	0.0692
Mercury	58819-04-27 08:53 G	23204374.79	23204374.87	23204374.96	0.1864	0.1504
Venus	58819-12-05 06:00 G	23204596.58	23204596.75	23204596.93	0.1621	0.0145
Mercury	58825-12-20 06:14 G	23206803.73	23206803.76	23206803.80	0.1658	0.1576
Mercury	58837-04-17 00:58 G	23210939.46	23210939.54	23210939.63	0.1671	0.1205
Mercury	58846-09-07 10:48 G	23214369.83	23214369.95	23214370.07	0.1666	0.0328
Mercury	58849-06-05 09:36 G	23215371.75	23215371.90	23215372.04	0.1858	0.0538
Venus	58850-12-29 11:02 G	23215943.79	23215943.96	23215944.14	0.1903	0.0047
Mercury	58856-01-28 20:38 G	23217800.24	23217800.36	23217800.48	0.1662	0.0555
Mercury	58858-10-26 09:07 G	23218801.78	23218801.88	23218801.99	0.1864	0.1313
Mercury	58865-06-20 06:14 G	23221230.71	23221230.76	23221230.83	0.1658	0.1439
Earth	58869-02-11 08:38 G	23222562.77	23222562.86	23222562.96	0.1628	0.1371
Moon	58869-02-11 13:26 G	23222562.95	23222563.06	23222563.17	0.1628	0.1257 *
Mercury	58876-10-16 00:58 G	23225366.47	23225366.54	23225366.62	0.1671	0.1339
Venus	58885-10-01 18:43 G	23228639.11	23228639.28	23228639.45	0.1622	0.0114
Mercury	58886-03-08 11:02 G	23228796.84	23228796.96	23228797.08	0.1666	0.0469
Mercury	58888-12-04 10:05 G	23229798.78	23229798.92	23229799.06	0.1858	0.0754
Mercury	58895-07-29 20:38 G	23232227.24	23232227.36	23232227.49	0.1662	0.0419
Mercury	58898-04-26 09:36 G	23233228.78	23233228.90	23233229.02	0.1864	0.1094
Mercury	58904-12-20 06:29 G	23235657.69	23235657.77	23235657.84	0.1658	0.1296
Mercury	58916-04-17 01:12 G	23239793.49	23239793.55	23239793.60	0.1671	0.1475
Venus	58916-10-26 12:58 G	23239985.89	23239986.04	23239986.19	0.1901	0.0929

Mercury	58925-09-07 11:02 G	23243223.84	23243223.96	23243224.07	0.1666	0.0599
Mercury	58928-06-05 10:34 G	23244225.81	23244225.94	23244226.06	0.1858	0.0968
Mercury	58935-01-28 20:53 G	23246654.25	23246654.37	23246654.49	0.1662	0.0275
Mercury	58937-10-26 10:19 G	23247655.79	23247655.93	23247656.06	0.1864	0.0871
Mercury	58944-06-20 06:29 G	23250084.68	23250084.77	23250084.86	0.1658	0.1156
Venus	58951-07-31 07:12 G	23252681.64	23252681.80	23252681.97	0.1623	0.0368
Mercury	58955-10-17 01:12 G	23254220.52	23254220.55	23254220.58	0.1671	0.1609
Mercury	58965-03-08 11:02 G	23257650.85	23257650.96	23257651.07	0.1666	0.0739
Mercury	58967-12-05 10:48 G	23258652.84	23258652.95	23258653.07	0.1858	0.1183
Mercury	58974-07-29 20:53 G	23261081.24	23261081.37	23261081.49	0.1662	0.0145
Mercury	58977-04-26 10:19 G	23262082.79	23262082.93	23262083.07	0.1864	0.0690
Venus	58982-08-23 15:50 G	23264028.10	23264028.16	23264028.22	0.1899	0.1781
Mercury	58983-12-20 06:43 G	23264511.68	23264511.78	23264511.87	0.1658	0.1018
Moon	58986-08-15 03:50 G	23265480.53	23265480.66	23265480.80	0.1898	0.1377
Earth	58986-08-15 13:12 G	23265480.96	23265481.05	23265481.14	0.1898	0.1703

60TH MILLENNIUM CE

This is a list of transits visible from Mars in the 60th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	59004-09-07 11:02 G	23272077.86	23272077.96	23272078.07	0.1666	0.0875		
Mercury	59007-06-06 11:17 G	23273079.87	23273079.97	23273080.07	0.1858	0.1382		
Mercury	59014-01-28 20:53 G	23275508.25	23275508.37	23275508.50	0.1662	0.0050		
Mercury	59016-10-26 11:02 G	23276509.81	23276509.96	23276510.10	0.1864	0.0456		

Venus	59017-05-28 19:55 G	23276724.17	23276724.33	23276724.49	0.1625	0.0622
Mercury	59023-06-21 06:43 G	23278938.67	23278938.78	23278938.88	0.1658	0.0876
Mercury	59044-03-08 11:17 G	23286504.87	23286504.97	23286505.06	0.1667	0.1010
Mercury	59046-12-05 11:46 G	23287506.92	23287506.99	23287507.07	0.1858	0.1617
Venus	59049-05-27 12:14 G	23288410.99	23288411.01	23288411.04	0.1621	0.1605
Mercury	59053-07-29 21:07 G	23289935.25	23289935.38	23289935.50	0.1662	0.0147
Mercury	59056-04-26 11:31 G	23290936.83	23290936.98	23290937.13	0.1863	0.0249
Mercury	59062-12-20 06:43 G	23293365.67	23293365.78	23293365.89	0.1658	0.0736
Mercury	59072-05-11 16:34 G	23296796.16	23296796.19	23296796.21	0.1654	0.1615
Moon	59074-02-12 09:50 G	23297437.71	23297437.91	23297438.10	0.1624	0.0115
Earth	59074-02-12 14:24 G	23297437.92	23297438.10	23297438.29	0.1625	0.0027 *
Venus	59083-03-26 08:38 G	23300766.71	23300766.86	23300767.00	0.1626	0.0875
Mercury	59083-09-07 11:17 G	23300931.88	23300931.97	23300932.06	0.1666	0.1146
Mercury	59086-06-05 12:14 G	23301933.98	23301934.01	23301934.03	0.1858	0.1815
Mercury	59093-01-27 21:07 G	23304362.26	23304362.38	23304362.50	0.1662	0.0275
Mercury	59095-10-26 11:46 G	23305363.83	23305363.99	23305364.14	0.1864	0.0076
Mercury	59102-06-21 06:43 G	23307792.67	23307792.78	23307792.90	0.1658	0.0602
Mercury	59105-03-18 11:46 G	23308793.98	23308793.99	23308794.01	0.1869	0.1850
Mercury	59111-11-11 16:34 G	23311223.14	23311223.19	23311223.24	0.1654	0.1473
Venus	59115-03-26 00:43 G	23312453.43	23312453.53	23312453.62	0.1622	0.1345
Mercury	59123-03-09 11:17 G	23315358.90	23315358.97	23315359.05	0.1666	0.1285
Mercury	59132-07-29 21:07 G	23318789.26	23318789.38	23318789.50	0.1662	0.0413
Mercury	59135-04-27 12:14 G	23319790.86	23319791.01	23319791.16	0.1864	0.0173
Mercury	59141-12-20 06:58 G	23322219.67	23322219.79	23322219.91	0.1658	0.0459
Mercury	59144-09-16 12:00 G	23323220.93	23323221.00	23323221.06	0.1869	0.1668
Venus	59146-04-18 20:53 G	23323800.23	23323800.37	23323800.51	0.1901	0.1157
Venus	59149-01-21 20:53 G	23324809.25	23324809.37	23324809.49	0.1627	0.1139
Mercury	59151-05-12 16:34 G	23325650.12	23325650.19	23325650.27	0.1654	0.1336
Mercury	59162-09-07 11:17 G	23329785.91	23329785.97	23329786.04	0.1667	0.1414
Mercury	59172-01-28 21:22 G	23333216.27	23333216.39	23333216.50	0.1662	0.0555

Mercury	59174-10-26 12:43 G	23334217.88	23334218.03	23334218.18	0.1863	0.0392
Venus	59181-01-20 13:26 G	23336495.93	23336496.06	23336496.18	0.1624	0.1098
Mercury	59181-06-20 06:58 G	23336646.67	23336646.79	23336646.91	0.1658	0.0319
Mercury	59184-03-17 12:29 G	23337647.93	23337648.02	23337648.11	0.1869	0.1451
Mercury	59190-11-10 16:48 G	23340077.11	23340077.20	23340077.28	0.1654	0.1194
Mercury	59202-03-08 11:31 G	23344212.94	23344212.98	23344213.02	0.1666	0.1552
Mercury	59211-07-29 21:07 G	23347643.27	23347643.38	23347643.50	0.1662	0.0686
Venus	59212-02-13 23:17 G	23347842.29	23347842.47	23347842.64	0.1899	0.0265
Mercury	59214-04-26 12:58 G	23348644.89	23348645.04	23348645.18	0.1864	0.0580
Venus	59214-11-19 09:36 G	23348851.81	23348851.90	23348851.99	0.1629	0.1386
Mercury	59220-12-19 07:12 G	23351073.67	23351073.80	23351073.92	0.1658	0.0187
Mercury	59223-09-16 12:58 G	23352074.93	23352075.04	23352075.15	0.1869	0.1225
Mercury	59230-05-11 16:48 G	23354504.11	23354504.20	23354504.30	0.1654	0.1051
Venus	59246-11-18 02:10 G	23360538.44	23360538.59	23360538.74	0.1625	0.0849
Mercury	59251-01-27 21:22 G	23362070.28	23362070.39	23362070.50	0.1662	0.0826
Mercury	59253-10-25 13:26 G	23363071.93	23363072.06	23363072.20	0.1864	0.0815
Mercury	59260-06-19 07:12 G	23365500.67	23365500.80	23365500.92	0.1658	0.0049
Mercury	59263-03-17 13:12 G	23366501.93	23366502.05	23366502.17	0.1869	0.1040
Mercury	59269-11-09 16:48 G	23368931.10	23368931.20	23368931.31	0.1654	0.0919
Earth	59270-08-16 11:02 G	23369210.77	23369210.96	23369211.15	0.1902	0.0737
Moon	59270-08-16 19:12 G	23369211.11	23369211.30	23369211.50	0.1902	0.0070 *
Venus	59277-12-11 01:55 G	23371884.41	23371884.58	23371884.75	0.1897	0.0611
Earth	59279-02-12 21:07 G	23372313.27	23372313.38	23372313.49	0.1621	0.1303
Moon	59279-02-13 00:14 G	23372313.43	23372313.51	23372313.60	0.1622	0.1411 *
Mercury	59290-07-28 21:22 G	23376497.29	23376497.39	23376497.49	0.1662	0.0962
Mercury	59293-04-25 13:55 G	23377498.96	23377499.08	23377499.21	0.1863	0.1022
Mercury	59299-12-19 07:12 G	23379927.68	23379927.80	23379927.93	0.1658	0.0100
Mercury	59302-09-16 13:41 G	23380928.93	23380929.07	23380929.20	0.1869	0.0829
Mercury	59309-05-11 17:02 G	23383358.10	23383358.21	23383358.32	0.1654	0.0772
Venus	59312-09-15 14:38 G	23384580.95	23384581.11	23384581.27	0.1626	0.0593

Mercury	59318-10-02 02:38 G	23386788.61	23386788.61	23386788.61	0.1650	0.1647
Mercury	59330-01-27 21:22 G	23390924.30	23390924.39	23390924.49	0.1662	0.1092
Mercury	59332-10-25 14:10 G	23391925.98	23391926.09	23391926.21	0.1864	0.1220
Mercury	59339-06-20 07:26 G	23394354.68	23394354.81	23394354.93	0.1658	0.0238
Mercury	59342-03-17 14:10 G	23395355.95	23395356.09	23395356.24	0.1869	0.0597
Venus	59343-10-09 03:50 G	23395926.56	23395926.66	23395926.77	0.1895	0.1511
Mercury	59348-11-09 17:02 G	23397785.10	23397785.21	23397785.33	0.1654	0.0635
Moon	59358-02-15 18:58 G	23401170.16	23401170.29	23401170.43	0.1623	0.1047
Earth	59358-02-15 22:19 G	23401170.27	23401170.43	23401170.58	0.1623	0.0890 *
Mercury	59358-04-02 02:53 G	23401215.57	23401215.62	23401215.67	0.1650	0.1503
Mercury	59369-07-28 21:36 G	23405351.32	23405351.40	23405351.48	0.1662	0.1229
Mercury	59372-04-25 14:53 G	23406353.02	23406353.12	23406353.21	0.1863	0.1443
Venus	59378-07-14 03:07 G	23408623.47	23408623.63	23408623.80	0.1627	0.0342
Mercury	59378-12-19 07:26 G	23408781.69	23408781.81	23408781.93	0.1658	0.0369
Mercury	59381-09-15 14:24 G	23409782.95	23409783.10	23409783.25	0.1869	0.0415
Mercury	59388-05-10 17:17 G	23412212.10	23412212.22	23412212.34	0.1654	0.0500
Mercury	59397-10-01 02:53 G	23415642.55	23415642.62	23415642.69	0.1650	0.1364
Mercury	59409-01-27 21:36 G	23419778.33	23419778.40	23419778.47	0.1662	0.1368
Mercury	59411-10-26 15:22 G	23420780.07	23420780.14	23420780.20	0.1863	0.1661
Mercury	59418-06-20 07:26 G	23423208.69	23423208.81	23423208.93	0.1658	0.0508
Mercury	59421-03-17 14:53 G	23424209.97	23424210.12	23424210.27	0.1869	0.0196
Mercury	59427-11-10 17:17 G	23426639.10	23426639.22	23426639.34	0.1654	0.0359
Mercury	59437-04-02 02:53 G	23430069.54	23430069.62	23430069.70	0.1650	0.1226
Venus	59444-05-11 15:50 G	23432665.99	23432666.16	23432666.33	0.1629	0.0082
Mercury	59448-07-28 21:36 G	23434205.35	23434205.40	23434205.45	0.1662	0.1495
Mercury	59451-04-26 15:36 G	23435207.14	23435207.15	23435207.16	0.1864	0.1853
Mercury	59457-12-19 07:41 G	23437635.70	23437635.82	23437635.93	0.1658	0.0644
Mercury	59460-09-15 15:22 G	23438636.99	23438637.14	23438637.29	0.1869	0.0049
Mercury	59467-05-11 17:17 G	23441066.10	23441066.22	23441066.35	0.1654	0.0224
Mercury	59470-02-05 15:22 G	23442067.10	23442067.14	23442067.17	0.1874	0.1806

Mercury	59476-10-01 03:07 G	23444496.53	23444496.63	23444496.72	0.1650	0.1084
Mercury	59488-01-27 21:50 G	23448632.39	23448632.41	23448632.43	0.1662	0.1634
Mercury	59497-06-19 07:41 G	23452062.71	23452062.82	23452062.93	0.1658	0.0776
Mercury	59500-03-17 15:36 G	23453064.00	23453064.15	23453064.30	0.1869	0.0213
Mercury	59506-11-10 17:31 G	23455493.10	23455493.23	23455493.35	0.1654	0.0103
Venus	59507-06-04 09:50 G	23455698.80	23455698.91	23455699.02	0.1897	0.1469
Mercury	59509-08-07 15:36 G	23456494.08	23456494.15	23456494.23	0.1875	0.1598
Venus	59510-03-10 04:19 G	23456708.50	23456708.68	23456708.85	0.1630	0.0179
Mercury	59516-04-02 03:07 G	23458923.53	23458923.63	23458923.74	0.1650	0.0942
Mercury	59536-12-19 07:41 G	23466489.72	23466489.82	23466489.93	0.1658	0.0914
Mercury	59539-09-16 16:05 G	23467491.02	23467491.17	23467491.32	0.1869	0.0428
Mercury	59546-05-11 17:31 G	23469920.11	23469920.23	23469920.36	0.1654	0.0059
Mercury	59549-02-05 16:05 G	23470921.07	23470921.17	23470921.27	0.1874	0.1389
Mercury	59555-10-02 03:07 G	23473350.52	23473350.63	23473350.74	0.1650	0.0811
Earth	59563-02-17 05:02 G	23476045.53	23476045.71	23476045.89	0.1620	0.0415
Moon	59563-02-17 08:38 G	23476045.68	23476045.86	23476046.05	0.1620	0.0523 *
Venus	59573-03-31 12:00 G	23479740.83	23479741.00	23479741.17	0.1895	0.0570
Venus	59576-01-05 16:34 G	23480751.02	23480751.19	23480751.36	0.1631	0.0444
Mercury	59576-06-19 07:55 G	23480916.73	23480916.83	23480916.92	0.1658	0.1050
Mercury	59579-03-17 16:48 G	23481918.06	23481918.20	23481918.34	0.1869	0.0660
Mercury	59585-11-09 17:31 G	23484347.11	23484347.23	23484347.36	0.1654	0.0198
Mercury	59588-08-06 16:19 G	23485348.07	23485348.18	23485348.30	0.1874	0.1193
Mercury	59595-04-02 03:22 G	23487777.52	23487777.64	23487777.75	0.1650	0.0667
Mercury	59604-08-22 12:58 G	23491208.00	23491208.04	23491208.09	0.1647	0.1531
Mercury	59615-12-19 07:55 G	23495343.74	23495343.83	23495343.91	0.1658	0.1181
Mercury	59618-09-15 16:48 G	23496345.07	23496345.20	23496345.33	0.1869	0.0835
Mercury	59625-05-10 17:46 G	23498774.11	23498774.24	23498774.36	0.1654	0.0331
Mercury	59628-02-05 17:02 G	23499775.08	23499775.21	23499775.33	0.1874	0.0972
Mercury	59634-10-01 03:22 G	23502204.52	23502204.64	23502204.76	0.1650	0.0530
Venus	59639-01-26 14:38 G	23503782.94	23503783.11	23503783.28	0.1893	0.0299

Venus	59641-11-02 05:02 G	23504793.56	23504793.71	23504793.87	0.1633	0.0699
Mercury	59644-02-21 13:12 G	23505634.98	23505635.05	23505635.11	0.1647	0.1389
Mercury	59655-06-19 07:55 G	23509770.76	23509770.83	23509770.90	0.1658	0.1316
Mercury	59658-03-16 17:17 G	23510772.10	23510772.22	23510772.35	0.1869	0.1058
Mercury	59664-11-08 17:46 G	23513201.12	23513201.24	23513201.36	0.1654	0.0463
Mercury	59667-08-06 17:02 G	23514202.08	23514202.21	23514202.35	0.1874	0.0782
Venus	59673-10-31 21:50 G	23516480.37	23516480.41	23516480.46	0.1629	0.1554
Mercury	59674-04-01 03:22 G	23516631.52	23516631.64	23516631.77	0.1650	0.0398
Mercury	59683-08-22 13:12 G	23520061.97	23520062.05	23520062.13	0.1647	0.1253
Mercury	59694-12-18 07:55 G	23524197.78	23524197.83	23524197.89	0.1658	0.1450
Mercury	59697-09-14 17:46 G	23525199.13	23525199.24	23525199.35	0.1869	0.1277
Mercury	59704-05-10 17:46 G	23527628.13	23527628.24	23527628.36	0.1654	0.0603
Venus	59704-11-23 17:31 G	23527825.09	23527825.23	23527825.37	0.1890	0.1156
Mercury	59707-02-05 17:31 G	23528629.09	23528629.23	23528629.38	0.1874	0.0570
Venus	59707-08-31 17:17 G	23528836.08	23528836.22	23528836.35	0.1635	0.0974
Mercury	59713-10-01 03:36 G	23531058.53	23531058.65	23531058.77	0.1650	0.0255
Mercury	59723-02-21 13:12 G	23534488.96	23534489.05	23534489.15	0.1647	0.1114
Mercury	59734-06-19 07:55 G	23538624.80	23538624.83	23538624.87	0.1658	0.1581
Mercury	59737-03-16 18:00 G	23539626.16	23539626.25	23539626.34	0.1869	0.1463
Venus	59739-08-30 10:19 G	23540522.82	23540522.93	23540523.03	0.1630	0.1293
Mercury	59743-11-09 17:46 G	23542055.13	23542055.24	23542055.36	0.1654	0.0734
Mercury	59746-08-06 18:00 G	23543056.11	23543056.25	23543056.40	0.1874	0.0357
Mercury	59753-04-01 03:36 G	23545485.53	23545485.65	23545485.78	0.1651	0.0123
Mercury	59762-08-22 13:26 G	23548915.96	23548916.06	23548916.16	0.1647	0.0975
Venus	59773-06-28 05:31 G	23552878.62	23552878.73	23552878.84	0.1636	0.1240
Mercury	59776-09-14 18:29 G	23554053.21	23554053.27	23554053.34	0.1869	0.1680
Mercury	59783-05-10 18:00 G	23556482.14	23556482.25	23556482.36	0.1654	0.0869
Mercury	59786-02-04 18:14 G	23557483.12	23557483.26	23557483.41	0.1874	0.0168
Mercury	59792-09-30 03:36 G	23559912.53	23559912.65	23559912.78	0.1650	0.0045
Mercury	59802-02-21 13:26 G	23563342.95	23563343.06	23563343.17	0.1647	0.0837

Venus	59805-06-27 22:48 G	23564565.32	23564565.45	23564565.58	0.1631	0.1034
Mercury	59822-11-09 18:00 G	23570909.15	23570909.25	23570909.35	0.1654	0.1001
Mercury	59825-08-06 18:43 G	23571910.13	23571910.28	23571910.43	0.1874	0.0043
Mercury	59832-04-01 03:50 G	23574339.54	23574339.66	23574339.79	0.1650	0.0155
Mercury	59834-12-27 18:58 G	23575340.24	23575340.29	23575340.34	0.1879	0.1754
Venus	59839-04-26 17:31 G	23576921.17	23576921.23	23576921.30	0.1638	0.1516
Mercury	59841-08-22 13:26 G	23577769.95	23577770.06	23577770.18	0.1647	0.0703
Moon	59847-02-20 06:29 G	23579777.58	23579777.77	23579777.96	0.1618	0.0130
Earth	59847-02-20 12:58 G	23579777.86	23579778.04	23579778.22	0.1619	0.0467 *
Mercury	59851-01-12 23:02 G	23581200.43	23581200.46	23581200.50	0.1644	0.1562
Mercury	59862-05-10 18:00 G	23585336.16	23585336.25	23585336.34	0.1654	0.1135
Mercury	59865-02-04 19:12 G	23586337.16	23586337.30	23586337.45	0.1874	0.0270
Venus	59868-07-18 22:19 G	23587597.36	23587597.43	23587597.49	0.1892	0.1749
Venus	59871-04-25 11:02 G	23588607.81	23588607.96	23588608.11	0.1633	0.0768
Mercury	59871-10-01 03:50 G	23588766.54	23588766.66	23588766.79	0.1650	0.0291
Mercury	59874-06-27 19:12 G	23589767.22	23589767.30	23589767.38	0.1879	0.1556
Mercury	59881-02-20 13:41 G	23592196.95	23592197.07	23592197.19	0.1647	0.0561
Mercury	59890-07-13 23:17 G	23595627.41	23595627.47	23595627.53	0.1643	0.1420
Mercury	59901-11-09 18:14 G	23599763.18	23599763.26	23599763.33	0.1654	0.1268
Mercury	59904-08-06 19:26 G	23600764.16	23600764.31	23600764.45	0.1874	0.0451
Mercury	59911-04-02 03:50 G	23603193.54	23603193.66	23603193.79	0.1650	0.0424
Mercury	59913-12-27 19:26 G	23604194.21	23604194.31	23604194.41	0.1879	0.1365
Moon	59917-08-23 08:38 G	23605528.65	23605528.86	23605529.08	0.1906	0.0173
Earth	59917-08-23 17:17 G	23605529.02	23605529.22	23605529.42	0.1906	0.0376 *
Mercury	59920-08-22 13:41 G	23606623.95	23606624.07	23606624.19	0.1647	0.0428
Mercury	59930-01-12 23:17 G	23610054.40	23610054.47	23610054.55	0.1644	0.1280
Venus	59934-05-17 00:58 G	23611639.39	23611639.54	23611639.70	0.1890	0.0886
Venus	59937-02-20 23:17 G	23612650.31	23612650.47	23612650.64	0.1635	0.0506
Mercury	59941-05-10 18:14 G	23614190.20	23614190.26	23614190.32	0.1654	0.1402
Mercury	59944-02-05 19:55 G	23615191.19	23615191.33	23615191.47	0.1874	0.0663

Mercury	59950-10-01 04:05 G	23617620.55	23617620.67	23617620.79	0.1650	0.0557
Mercury	59953-06-27 19:55 G	23618621.21	23618621.33	23618621.44	0.1879	0.1157
Mercury	59960-02-21 13:55 G	23621050.95	23621051.08	23621051.20	0.1647	0.0296
Mercury	59969-07-13 23:17 G	23624481.39	23624481.47	23624481.57	0.1644	0.1149
Mercury	59980-11-08 18:14 G	23628617.22	23628617.26	23628617.31	0.1654	0.1529
Mercury	59983-08-06 20:24 G	23629618.22	23629618.35	23629618.48	0.1874	0.0877
Mercury	59990-04-01 04:05 G	23632047.56	23632047.67	23632047.79	0.1651	0.0693
Mercury	59992-12-26 20:24 G	23633048.22	23633048.35	23633048.47	0.1879	0.0949
Mercury	59999-08-22 13:55 G	23635477.95	23635478.08	23635478.20	0.1647	0.0155
Venus	60000-03-13 03:07 G	23635681.46	23635681.63	23635681.81	0.1887	0.0051

61ST MILLENNIUM CE

This is a list of transits visible from Mars in the 61st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	60002-12-19 11:31 G	23636692.81	23636692.98	23636693.15	0.1636	0.0233		
Mercury	60009-01-11 23:31 G	23638908.38	23638908.48	23638908.58	0.1643	0.1006		
Mercury	60023-02-04 20:38 G	23644045.24	23644045.36	23644045.48	0.1874	0.1068		
Mercury	60029-09-30 04:05 G	23646474.56	23646474.67	23646474.78	0.1650	0.0820		
Mercury	60032-06-26 20:24 G	23647475.22	23647475.35	23647475.49	0.1879	0.0766		
Mercury	60039-02-20 13:55 G	23649904.96	23649905.08	23649905.21	0.1647	0.0045		
Mercury	60048-07-12 23:31 G	23653335.38	23653335.48	23653335.59	0.1643	0.0870		
Earth	60052-02-20 19:26 G	23654653.15	23654653.31	23654653.47	0.1616	0.0843		
Moon	60052-02-21 00:58 G	23654653.37	23654653.54	23654653.71	0.1617	0.0550 *		

Mercury	60062-08-05 20:53 G	23658472.26	23658472.37	23658472.48	0.1874	0.1268
Venus	60066-01-08 06:14 G	23659723.60	23659723.76	23659723.92	0.1885	0.0834
Venus	60068-10-15 23:46 G	23660735.32	23660735.49	23660735.67	0.1638	0.0038
Mercury	60069-03-31 04:19 G	23660901.58	23660901.68	23660901.78	0.1650	0.0958
Mercury	60071-12-26 21:07 G	23661902.23	23661902.38	23661902.52	0.1879	0.0546
Mercury	60078-08-21 13:55 G	23664331.96	23664332.08	23664332.21	0.1647	0.0126
Mercury	60088-01-11 23:46 G	23667762.37	23667762.49	23667762.60	0.1644	0.0737
Mercury	60097-06-03 09:22 G	23671192.86	23671192.89	23671192.92	0.1640	0.1585
Mercury	60102-02-04 21:36 G	23672899.31	23672899.40	23672899.49	0.1874	0.1499
Mercury	60108-09-30 04:19 G	23675328.59	23675328.68	23675328.77	0.1650	0.1090
Mercury	60111-06-27 21:22 G	23676329.24	23676329.39	23676329.53	0.1879	0.0353
Mercury	60118-02-20 14:10 G	23678758.96	23678759.09	23678759.21	0.1647	0.0251
Mercury	60127-07-13 23:46 G	23682189.37	23682189.49	23682189.61	0.1643	0.0597
Moon	60131-02-23 19:12 G	23683510.17	23683510.30	23683510.42	0.1617	0.1119
Earth	60131-02-23 19:55 G	23683510.23	23683510.33	23683510.44	0.1617	0.1321 *
Venus	60131-11-06 09:07 G	23683765.80	23683765.88	23683765.96	0.1882	0.1669
Venus	60134-08-14 11:31 G	23684777.81	23684777.98	23684778.15	0.1640	0.0317
Mercury	60136-12-03 09:22 G	23685619.83	23685619.89	23685619.95	0.1640	0.1452
Mercury	60141-08-05 21:36 G	23687326.34	23687326.40	23687326.47	0.1874	0.1673
Mercury	60148-03-31 04:19 G	23689755.60	23689755.68	23689755.76	0.1650	0.1218
Mercury	60150-12-26 21:36 G	23690756.25	23690756.40	23690756.55	0.1879	0.0153
Mercury	60157-08-21 14:10 G	23693185.97	23693186.09	23693186.21	0.1647	0.0383
Mercury	60167-01-12 00:00 G	23696616.37	23696616.50	23696616.62	0.1644	0.0463
Mercury	60176-06-03 09:36 G	23700046.82	23700046.90	23700046.97	0.1640	0.1310
Mercury	60187-09-30 04:34 G	23704182.62	23704182.69	23704182.76	0.1650	0.1352
Mercury	60190-06-26 21:50 G	23705183.27	23705183.41	23705183.56	0.1879	0.0078
Mercury	60197-02-19 14:10 G	23707612.97	23707613.09	23707613.21	0.1647	0.0517
Mercury	60199-11-16 22:05 G	23708613.37	23708613.42	23708613.47	0.1884	0.1749
Venus	60200-06-11 23:46 G	23708820.33	23708820.49	23708820.65	0.1642	0.0590
Mercury	60206-07-14 00:00 G	23711043.37	23711043.50	23711043.62	0.1644	0.0330

Mercury	60215-12-04 09:36 G	23714473.81	23714473.90	23714473.99	0.1640	0.1174
Mercury	60227-04-01 04:34 G	23718609.64	23718609.69	23718609.74	0.1650	0.1486
Mercury	60229-12-26 22:19 G	23719610.29	23719610.43	23719610.58	0.1879	0.0264
Mercury	60236-08-21 14:24 G	23722039.98	23722040.10	23722040.21	0.1647	0.0650
Mercury	60239-05-18 22:34 G	23723040.36	23723040.44	23723040.52	0.1884	0.1544
Mercury	60246-01-12 00:00 G	23725470.38	23725470.50	23725470.63	0.1643	0.0193
Mercury	60255-06-04 09:36 G	23728900.81	23728900.90	23728901.00	0.1640	0.1042
Venus	60266-04-09 11:31 G	23732862.84	23732862.98	23732863.13	0.1643	0.0876
Mercury	60266-09-30 04:34 G	23733036.67	23733036.69	23733036.71	0.1650	0.1610
Mercury	60269-06-26 22:34 G	23734037.30	23734037.44	23734037.59	0.1879	0.0448
Mercury	60276-02-20 14:24 G	23736466.99	23736467.10	23736467.21	0.1647	0.0783
Mercury	60278-11-16 23:02 G	23737467.36	23737467.46	23737467.56	0.1883	0.1326
Mercury	60285-07-13 00:00 G	23739897.38	23739897.50	23739897.63	0.1644	0.0084
Mercury	60294-12-03 09:50 G	23743327.80	23743327.91	23743328.01	0.1640	0.0901
Venus	60295-07-01 13:12 G	23743537.91	23743538.05	23743538.19	0.1885	0.1172
Venus	60298-04-08 05:17 G	23744549.64	23744549.72	23744549.80	0.1638	0.1430
Mercury	60308-12-26 23:02 G	23748464.32	23748464.46	23748464.60	0.1879	0.0664
Mercury	60315-08-22 14:24 G	23750894.00	23750894.10	23750894.20	0.1647	0.0910
Mercury	60318-05-18 23:02 G	23751894.35	23751894.46	23751894.58	0.1884	0.1162
Mercury	60325-01-12 00:14 G	23754324.38	23754324.51	23754324.63	0.1644	0.0078
Venus	60332-02-05 23:17 G	23756905.35	23756905.47	23756905.60	0.1645	0.1165
Mercury	60334-06-04 09:50 G	23757754.80	23757754.91	23757755.03	0.1640	0.0764
Earth	60336-02-25 03:07 G	23758385.44	23758385.63	23758385.81	0.1616	0.0046
Moon	60336-02-25 03:36 G	23758385.46	23758385.65	23758385.85	0.1616	0.0239 *
Mercury	60343-10-25 19:26 G	23761185.29	23761185.31	23761185.33	0.1637	0.1613
Mercury	60348-06-26 23:17 G	23762891.34	23762891.47	23762891.61	0.1879	0.0856
Mercury	60355-02-20 14:38 G	23765321.01	23765321.11	23765321.20	0.1647	0.1048
Mercury	60357-11-16 23:31 G	23766321.36	23766321.48	23766321.61	0.1884	0.0943
Venus	60361-04-28 16:19 G	23767580.01	23767580.18	23767580.36	0.1882	0.0338
Venus	60364-02-04 17:31 G	23768592.11	23768592.23	23768592.35	0.1640	0.1165

Mercury	60364-07-13 00:14 G	23768751.39	23768751.51	23768751.64	0.1643	0.0213
Mercury	60373-12-03 09:50 G	23772181.80	23772181.91	23772182.03	0.1640	0.0636
Mercury	60383-04-25 19:26 G	23775612.26	23775612.31	23775612.37	0.1637	0.1477
Mercury	60387-12-26 23:46 G	23777318.37	23777318.49	23777318.61	0.1879	0.1059
Mercury	60394-08-21 14:38 G	23779748.02	23779748.11	23779748.20	0.1647	0.1177
Mercury	60397-05-18 00:00 G	23780748.37	23780748.50	23780748.64	0.1883	0.0736
Venus	60397-12-03 11:31 G	23780947.90	23780947.98	23780948.06	0.1647	0.1447
Mercury	60404-01-12 00:29 G	23783178.39	23783178.52	23783178.64	0.1644	0.0349
Mercury	60413-06-03 10:05 G	23786608.80	23786608.92	23786609.04	0.1640	0.0494
Mercury	60422-10-24 19:41 G	23790039.25	23790039.32	23790039.39	0.1637	0.1340
Venus	60427-02-23 18:58 G	23791622.12	23791622.29	23791622.46	0.1879	0.0507
Mercury	60427-06-27 00:00 G	23791745.40	23791745.50	23791745.61	0.1879	0.1263
Venus	60429-12-02 05:31 G	23792634.59	23792634.73	23792634.88	0.1642	0.0887
Mercury	60434-02-19 14:38 G	23794175.04	23794175.11	23794175.19	0.1647	0.1307
Mercury	60436-11-16 00:14 G	23795175.37	23795175.51	23795175.65	0.1884	0.0560
Mercury	60443-07-13 00:29 G	23797605.40	23797605.52	23797605.64	0.1644	0.0476
Mercury	60452-12-02 10:05 G	23801035.80	23801035.92	23801036.05	0.1640	0.0362
Mercury	60462-04-24 19:41 G	23804466.24	23804466.32	23804466.41	0.1637	0.1200
Mercury	60466-12-26 00:29 G	23806172.43	23806172.52	23806172.61	0.1879	0.1469
Mercury	60473-08-20 14:38 G	23808602.06	23808602.11	23808602.17	0.1647	0.1440
Mercury	60476-05-17 00:29 G	23809602.38	23809602.52	23809602.67	0.1884	0.0354
Mercury	60483-01-11 00:29 G	23812032.41	23812032.52	23812032.64	0.1643	0.0612
Mercury	60492-06-02 10:19 G	23815462.80	23815462.93	23815463.05	0.1640	0.0234
Venus	60492-12-20 22:34 G	23815664.31	23815664.44	23815664.56	0.1876	0.1313
Venus	60495-09-29 17:46 G	23816677.08	23816677.24	23816677.40	0.1643	0.0619
Mercury	60501-10-24 19:55 G	23818893.23	23818893.33	23818893.42	0.1637	0.1067
Mercury	60506-06-27 00:43 G	23820599.47	23820599.53	23820599.60	0.1879	0.1662
Mercury	60513-02-19 14:53 G	23823029.08	23823029.12	23823029.15	0.1647	0.1571
Mercury	60515-11-17 01:12 G	23824029.40	23824029.55	23824029.69	0.1883	0.0145
Mercury	60522-07-13 00:43 G	23826459.41	23826459.53	23826459.64	0.1644	0.0746

Mercury	60531-12-03 10:19 G	23829889.80	23829889.93	23829890.06	0.1640	0.0091
Moon	60541-02-24 09:22 G	23833260.81	23833260.89	23833260.96	0.1614	0.1446
Earth	60541-02-24 10:34 G	23833260.82	23833260.94	23833261.06	0.1614	0.1235 *
Mercury	60541-04-24 19:55 G	23833320.23	23833320.33	23833320.43	0.1637	0.0929
Mercury	60545-12-26 01:12 G	23835026.55	23835026.55	23835026.56	0.1879	0.1874
Mercury	60555-05-18 01:12 G	23838456.40	23838456.55	23838456.69	0.1884	0.0057
Venus	60561-07-28 05:31 G	23840719.56	23840719.73	23840719.90	0.1645	0.0332
Mercury	60562-01-11 00:43 G	23840886.42	23840886.53	23840886.64	0.1644	0.0875
Earth	60564-08-28 18:58 G	23841847.14	23841847.29	23841847.45	0.1909	0.1225
Moon	60564-08-29 05:02 G	23841847.57	23841847.71	23841847.85	0.1909	0.1340
Mercury	60564-10-07 01:41 G	23841886.52	23841886.57	23841886.63	0.1888	0.1717
Mercury	60571-06-03 10:34 G	23844316.81	23844316.94	23844317.06	0.1640	0.0075
Mercury	60580-10-23 19:55 G	23847747.22	23847747.33	23847747.45	0.1637	0.0794
Mercury	60590-03-16 05:31 G	23851177.73	23851177.73	23851177.73	0.1634	0.1634
Mercury	60594-11-16 01:41 G	23852883.42	23852883.57	23852883.72	0.1884	0.0257
Mercury	60601-07-13 00:43 G	23855313.43	23855313.53	23855313.63	0.1643	0.1008
Mercury	60604-04-08 01:55 G	23856313.50	23856313.58	23856313.66	0.1888	0.1539
Mercury	60610-12-03 10:34 G	23858743.81	23858743.94	23858744.06	0.1640	0.0183
Moon	60620-02-28 04:34 G	23862117.54	23862117.69	23862117.83	0.1615	0.0984
Earth	60620-02-28 10:48 G	23862117.79	23862117.95	23862118.10	0.1615	0.0888 *
Mercury	60620-04-24 20:10 G	23862174.22	23862174.34	23862174.46	0.1637	0.0656
Venus	60627-05-26 17:31 G	23864762.06	23864762.23	23864762.40	0.1647	0.0056
Mercury	60629-09-15 05:46 G	23865604.69	23865604.74	23865604.79	0.1634	0.1496
Mercury	60634-05-18 02:10 G	23867310.44	23867310.59	23867310.73	0.1883	0.0461
Mercury	60641-01-11 00:58 G	23869740.45	23869740.54	23869740.63	0.1644	0.1141
Mercury	60643-10-08 02:10 G	23870740.49	23870740.59	23870740.69	0.1888	0.1343
Mercury	60650-06-03 10:34 G	23873170.82	23873170.94	23873171.07	0.1640	0.0314
Venus	60656-08-16 02:38 G	23875436.51	23875436.61	23875436.71	0.1879	0.1512
Mercury	60659-10-24 20:10 G	23876601.22	23876601.34	23876601.46	0.1637	0.0523
Mercury	60669-03-16 05:46 G	23880031.67	23880031.74	23880031.81	0.1634	0.1361

Mercury	60673-11-16 02:10 G	23881737.45	23881737.59	23881737.73	0.1884	0.0640
Mercury	60680-07-12 00:58 G	23884167.46	23884167.54	23884167.62	0.1644	0.1269
Mercury	60683-04-08 02:38 G	23885167.50	23885167.61	23885167.73	0.1888	0.1126
Mercury	60689-12-02 10:48 G	23887597.82	23887597.95	23887598.07	0.1640	0.0450
Venus	60693-03-23 05:02 G	23888804.54	23888804.71	23888804.88	0.1649	0.0241
Mercury	60699-04-24 20:24 G	23891028.22	23891028.35	23891028.47	0.1637	0.0384
Mercury	60708-09-15 06:00 G	23894458.66	23894458.75	23894458.83	0.1634	0.1224
Mercury	60713-05-18 02:38 G	23896164.48	23896164.61	23896164.74	0.1883	0.0851
Mercury	60720-01-12 00:58 G	23898594.48	23898594.54	23898594.61	0.1643	0.1403
Venus	60722-06-14 05:31 G	23899478.56	23899478.73	23899478.89	0.1876	0.0680
Mercury	60722-10-08 02:53 G	23899594.49	23899594.62	23899594.75	0.1888	0.0948
Mercury	60729-06-03 10:48 G	23902024.83	23902024.95	23902025.07	0.1640	0.0577
Mercury	60738-10-24 20:24 G	23905455.23	23905455.35	23905455.48	0.1637	0.0252
Mercury	60748-03-16 06:00 G	23908885.66	23908885.75	23908885.85	0.1634	0.1084
Mercury	60752-11-16 03:07 G	23910591.51	23910591.63	23910591.76	0.1883	0.1067
Venus	60759-01-19 17:02 G	23912847.04	23912847.21	23912847.37	0.1651	0.0530
Mercury	60759-07-13 01:12 G	23913021.51	23913021.55	23913021.59	0.1644	0.1534
Mercury	60762-04-08 03:22 G	23914021.50	23914021.64	23914021.77	0.1888	0.0747
Mercury	60768-12-02 10:48 G	23916451.84	23916451.95	23916452.07	0.1640	0.0712
Mercury	60778-04-24 20:38 G	23919882.23	23919882.36	23919882.48	0.1637	0.0131
Mercury	60787-09-15 06:14 G	23923312.65	23923312.76	23923312.86	0.1634	0.0951
Venus	60788-04-10 09:07 G	23923520.71	23923520.88	23923521.06	0.1873	0.0110
Mercury	60792-05-17 03:22 G	23925018.53	23925018.64	23925018.75	0.1884	0.1238
Mercury	60801-10-07 03:50 G	23928448.52	23928448.66	23928448.80	0.1888	0.0531
Mercury	60808-06-02 11:02 G	23930878.85	23930878.96	23930879.06	0.1640	0.0846
Mercury	60817-10-23 20:38 G	23934309.23	23934309.36	23934309.49	0.1637	0.0023
Venus	60824-11-16 05:02 G	23936889.56	23936889.71	23936889.86	0.1653	0.0816
Earth	60825-02-27 18:14 G	23936993.08	23936993.26	23936993.45	0.1614	0.0356
Moon	60825-02-28 00:58 G	23936993.36	23936993.54	23936993.72	0.1614	0.0454 *
Mercury	60827-03-16 06:14 G	23937739.65	23937739.76	23937739.87	0.1634	0.0811

Mercury	60831-11-16 03:50 G	23939445.57	23939445.66	23939445.75	0.1883	0.1461
Mercury	60841-04-07 03:50 G	23942875.52	23942875.66	23942875.81	0.1888	0.0355
Mercury	60847-12-02 11:02 G	23945305.86	23945305.96	23945306.06	0.1640	0.0972
Earth	60848-08-29 13:12 G	23945576.93	23945577.05	23945577.17	0.1910	0.1524
Venus	60854-02-05 12:14 G	23947562.86	23947563.01	23947563.16	0.1870	0.0916
Venus	60856-11-14 23:31 G	23948576.43	23948576.48	23948576.54	0.1647	0.1548
Mercury	60857-04-23 20:53 G	23948736.24	23948736.37	23948736.49	0.1637	0.0164
Mercury	60866-09-14 06:29 G	23952166.65	23952166.77	23952166.88	0.1634	0.0675
Mercury	60871-05-17 04:19 G	23953872.61	23953872.68	23953872.74	0.1883	0.1662
Mercury	60876-02-04 15:50 G	23955597.12	23955597.16	23955597.21	0.1632	0.1511
Mercury	60880-10-06 04:19 G	23957302.53	23957302.68	23957302.83	0.1888	0.0154
Mercury	60887-06-02 11:02 G	23959732.87	23959732.96	23959733.06	0.1640	0.1110
Venus	60890-09-13 16:34 G	23960932.06	23960932.19	23960932.32	0.1656	0.1111
Mercury	60896-10-22 20:53 G	23963163.24	23963163.37	23963163.49	0.1637	0.0286
Mercury	60906-03-16 06:29 G	23966593.65	23966593.77	23966593.89	0.1635	0.0541
Mercury	60910-11-16 04:19 G	23968299.66	23968299.68	23968299.71	0.1884	0.1847
Mercury	60915-08-06 16:05 G	23970024.10	23970024.17	23970024.23	0.1632	0.1374
Venus	60919-12-04 16:19 G	23971605.10	23971605.18	23971605.25	0.1867	0.1684
Mercury	60920-04-07 04:48 G	23971729.56	23971729.70	23971729.85	0.1888	0.0081
Venus	60922-09-13 11:31 G	23972618.88	23972618.98	23972619.09	0.1649	0.1278
Mercury	60926-12-02 11:17 G	23974159.89	23974159.97	23974160.05	0.1640	0.1240
Mercury	60929-08-28 05:02 G	23975159.66	23975159.71	23975159.77	0.1891	0.1720
Mercury	60936-04-23 20:53 G	23977590.25	23977590.37	23977590.50	0.1637	0.0426
Mercury	60945-09-14 06:43 G	23981020.65	23981020.78	23981020.90	0.1634	0.0407
Mercury	60955-02-04 16:05 G	23984451.09	23984451.17	23984451.25	0.1632	0.1238
Venus	60956-07-12 04:19 G	23984974.59	23984974.68	23984974.77	0.1658	0.1402
Mercury	60959-10-07 05:02 G	23986156.56	23986156.71	23986156.85	0.1888	0.0246
Mercury	60966-06-02 11:17 G	23988586.90	23988586.97	23988587.04	0.1640	0.1368
Mercury	60969-02-26 05:31 G	23989586.65	23989586.73	23989586.81	0.1892	0.1522
Mercury	60975-10-23 21:07 G	23992017.26	23992017.38	23992017.50	0.1637	0.0554

Mercury	60985-03-15 06:43 G	23995447.66	23995447.78	23995447.91	0.1634	0.0267
Venus	60988-07-10 23:17 G	23996661.34	23996661.47	23996661.61	0.1651	0.0989
Mercury	60994-08-05 16:19 G	23998878.08	23998878.18	23998878.27	0.1632	0.1099
Mercury	60999-04-07 05:31 G	24000583.58	24000583.73	24000583.87	0.1888	0.0452

62ND MILLENNIUM CE

This is a list of transits visible from Mars in the 62nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	61005-12-02 11:31 G	24003013.93	24003013.98	24003014.02	0.1640	0.1501		
Mercury	61008-08-28 05:46 G	24004013.64	24004013.74	24004013.85	0.1892	0.1326		
Mercury	61015-04-24 21:07 G	24006444.27	24006444.38	24006444.50	0.1637	0.0687		
Venus	61017-10-01 16:05 G	24007335.16	24007335.17	24007335.18	0.1873	0.1869		
Mercury	61024-09-14 06:58 G	24009874.66	24009874.79	24009874.91	0.1635	0.0147		
Moon	61030-02-28 21:07 G	24011868.31	24011868.38	24011868.45	0.1614	0.1484		
Earth	61030-03-01 03:07 G	24011868.60	24011868.63	24011868.67	0.1614	0.1574		
Mercury	61034-02-04 16:19 G	24013305.08	24013305.18	24013305.29	0.1632	0.0962		
Mercury	61038-10-07 06:00 G	24015010.61	24015010.75	24015010.88	0.1888	0.0665		
Mercury	61045-06-02 11:31 G	24017440.97	24017440.98	24017440.99	0.1640	0.1634		
Mercury	61048-02-27 06:14 G	24018440.64	24018440.76	24018440.88	0.1891	0.1123		
Venus	61054-05-09 11:17 G	24020703.81	24020703.97	24020704.12	0.1654	0.0710		
Mercury	61054-10-23 21:22 G	24020871.28	24020871.39	24020871.50	0.1637	0.0822		
Mercury	61064-03-15 06:58 G	24024301.66	24024301.79	24024301.92	0.1634	0.0015		
Mercury	61073-08-05 16:19 G	24027732.08	24027732.18	24027732.30	0.1632	0.0832		

Mercury	61078-04-07 06:00 G	24029437.62	24029437.75	24029437.88	0.1887	0.0841
Venus	61083-07-29 20:10 G	24031377.20	24031377.34	24031377.48	0.1870	0.1101
Mercury	61087-08-28 06:29 G	24032867.65	24032867.77	24032867.90	0.1892	0.0934
Mercury	61094-04-23 21:22 G	24035298.29	24035298.39	24035298.50	0.1637	0.0954
Mercury	61103-09-15 06:58 G	24038728.67	24038728.79	24038728.92	0.1634	0.0147
Moon	61109-03-04 01:12 G	24040725.36	24040725.55	24040725.75	0.1614	0.0321
Earth	61109-03-04 02:53 G	24040725.45	24040725.62	24040725.80	0.1614	0.0551 *
Mercury	61113-02-04 16:34 G	24042159.08	24042159.19	24042159.31	0.1632	0.0690
Mercury	61117-10-07 06:29 G	24043864.65	24043864.77	24043864.89	0.1888	0.1046
Venus	61120-03-06 22:48 G	24044746.28	24044746.45	24044746.61	0.1656	0.0412
Mercury	61122-06-28 02:10 G	24045589.55	24045589.59	24045589.63	0.1629	0.1522
Mercury	61127-02-27 06:58 G	24047294.66	24047294.79	24047294.92	0.1891	0.0727
Mercury	61133-10-23 21:22 G	24049725.30	24049725.39	24049725.49	0.1637	0.1081
Mercury	61143-03-16 07:12 G	24053155.67	24053155.80	24053155.93	0.1635	0.0269
Venus	61149-05-26 23:31 G	24055419.31	24055419.48	24055419.66	0.1867	0.0307
Mercury	61152-08-05 16:48 G	24056586.08	24056586.20	24056586.32	0.1632	0.0554
Mercury	61157-04-07 07:12 G	24058291.69	24058291.80	24058291.90	0.1888	0.1269
Mercury	61161-12-27 02:24 G	24060016.53	24060016.60	24060016.66	0.1629	0.1383
Mercury	61166-08-28 07:12 G	24061721.66	24061721.80	24061721.94	0.1891	0.0540
Mercury	61173-04-23 21:36 G	24064152.32	24064152.40	24064152.48	0.1637	0.1217
Mercury	61182-09-14 07:12 G	24067582.68	24067582.80	24067582.93	0.1634	0.0406
Venus	61186-01-02 10:34 G	24068788.77	24068788.94	24068789.11	0.1658	0.0121
Mercury	61192-02-04 16:48 G	24071013.08	24071013.20	24071013.33	0.1632	0.0421
Mercury	61196-10-06 07:12 G	24072718.70	24072718.80	24072718.89	0.1887	0.1436
Mercury	61201-06-27 02:24 G	24074443.52	24074443.60	24074443.68	0.1629	0.1247
Mercury	61206-02-26 07:41 G	24076148.68	24076148.82	24076148.96	0.1892	0.0333
Moon	61211-09-04 13:41 G	24078165.03	24078165.07	24078165.10	0.1910	0.1873
Mercury	61212-10-22 21:36 G	24078579.33	24078579.40	24078579.47	0.1637	0.1348
Venus	61215-03-24 03:36 G	24079461.48	24079461.65	24079461.82	0.1864	0.0447
Mercury	61222-03-15 07:26 G	24082009.69	24082009.81	24082009.93	0.1635	0.0539

Mercury	61231-08-05 17:02 G	24085440.08	24085440.21	24085440.33	0.1632	0.0284
Mercury	61236-04-06 07:41 G	24087145.75	24087145.82	24087145.89	0.1888	0.1648
Mercury	61240-12-26 02:24 G	24088870.51	24088870.60	24088870.70	0.1629	0.1112
Mercury	61245-08-27 07:55 G	24090575.68	24090575.83	24090575.98	0.1891	0.0142
Venus	61251-10-30 22:19 G	24092831.26	24092831.43	24092831.60	0.1660	0.0174
Mercury	61252-04-22 21:50 G	24093006.36	24093006.41	24093006.46	0.1637	0.1476
Mercury	61255-01-17 08:24 G	24094005.85	24094005.85	24094005.86	0.1895	0.1894
Mercury	61261-09-13 07:26 G	24096436.70	24096436.81	24096436.93	0.1635	0.0668
Mercury	61271-02-03 17:02 G	24099867.09	24099867.21	24099867.34	0.1632	0.0154
Mercury	61275-10-06 08:10 G	24101572.82	24101572.84	24101572.86	0.1887	0.1862
Mercury	61280-06-26 02:38 G	24103297.51	24103297.61	24103297.71	0.1629	0.0971
Venus	61281-01-18 07:26 G	24103503.68	24103503.81	24103503.94	0.1861	0.1210
Mercury	61285-02-25 08:24 G	24105002.70	24105002.85	24105002.99	0.1891	0.0064
Mercury	61291-10-22 21:50 G	24107433.39	24107433.41	24107433.43	0.1637	0.1609
Mercury	61294-07-18 08:53 G	24108432.81	24108432.87	24108432.93	0.1895	0.1691
Mercury	61301-03-15 07:41 G	24110863.71	24110863.82	24110863.93	0.1634	0.0802
Mercury	61310-08-05 17:17 G	24114294.09	24114294.22	24114294.35	0.1632	0.0043
Earth	61314-03-04 12:00 G	24115600.83	24115601.00	24115601.17	0.1614	0.0670
Moon	61314-03-04 13:41 G	24115600.90	24115601.07	24115601.24	0.1614	0.0433 *
Venus	61317-08-28 09:36 G	24116873.74	24116873.90	24116874.07	0.1662	0.0479
Mercury	61319-12-27 02:53 G	24117724.51	24117724.62	24117724.73	0.1630	0.0837
Mercury	61324-08-27 08:38 G	24119429.72	24119429.86	24119430.01	0.1892	0.0257
Mercury	61334-01-17 09:22 G	24122859.80	24122859.89	24122859.98	0.1895	0.1483
Mercury	61340-09-13 07:41 G	24125290.72	24125290.82	24125290.93	0.1635	0.0934
Mercury	61350-02-03 17:17 G	24128721.10	24128721.22	24128721.35	0.1632	0.0133
Mercury	61359-06-27 02:53 G	24132151.51	24132151.62	24132151.74	0.1629	0.0702
Mercury	61364-02-26 09:07 G	24133856.73	24133856.88	24133857.02	0.1891	0.0457
Mercury	61368-11-16 12:14 G	24135581.97	24135582.01	24135582.05	0.1627	0.1532
Mercury	61373-07-18 09:22 G	24137286.79	24137286.89	24137286.99	0.1895	0.1320
Mercury	61380-03-14 07:55 G	24139717.73	24139717.83	24139717.92	0.1635	0.1065

Venus	61383-06-25 21:36 G	24140916.24	24140916.40	24140916.55	0.1665	0.0774
Mercury	61389-08-04 17:31 G	24143148.10	24143148.23	24143148.35	0.1632	0.0254
Moon	61393-03-06 07:26 G	24144457.69	24144457.81	24144457.92	0.1614	0.1203
Earth	61393-03-06 11:46 G	24144457.92	24144457.99	24144458.07	0.1614	0.1459 *
Mercury	61398-12-26 03:07 G	24146578.51	24146578.63	24146578.75	0.1629	0.0565
Mercury	61403-08-28 09:22 G	24148283.75	24148283.89	24148284.03	0.1891	0.0642
Mercury	61408-05-18 12:29 G	24150008.96	24150009.02	24150009.09	0.1627	0.1390
Mercury	61413-01-17 10:05 G	24151713.80	24151713.92	24151714.03	0.1895	0.1101
Venus	61415-06-25 17:02 G	24152603.20	24152603.21	24152603.22	0.1658	0.1648
Mercury	61419-09-14 07:55 G	24154144.75	24154144.83	24154144.92	0.1634	0.1194
Mercury	61429-02-03 17:31 G	24157575.11	24157575.23	24157575.36	0.1632	0.0384
Mercury	61438-06-27 03:07 G	24161005.51	24161005.63	24161005.76	0.1630	0.0431
Mercury	61443-02-26 09:50 G	24162710.78	24162710.91	24162711.04	0.1892	0.0857
Venus	61444-09-13 10:48 G	24163275.85	24163275.95	24163276.05	0.1864	0.1519
Mercury	61447-11-17 12:29 G	24164435.94	24164436.02	24164436.11	0.1627	0.1255
Venus	61449-04-23 08:38 G	24164958.73	24164958.86	24164958.99	0.1667	0.1086
Mercury	61452-07-18 10:19 G	24166140.80	24166140.93	24166141.06	0.1895	0.0909
Mercury	61459-03-15 08:10 G	24168571.76	24168571.84	24168571.91	0.1635	0.1328
Mercury	61468-08-04 17:46 G	24172002.12	24172002.24	24172002.36	0.1632	0.0518
Mercury	61477-12-26 03:22 G	24175432.51	24175432.64	24175432.76	0.1629	0.0301
Venus	61481-04-22 04:34 G	24176645.59	24176645.69	24176645.79	0.1660	0.1359
Mercury	61482-08-27 10:05 G	24177137.80	24177137.92	24177138.04	0.1891	0.1038
Mercury	61487-05-18 12:43 G	24178862.94	24178863.03	24178863.12	0.1627	0.1119
Mercury	61492-01-17 10:34 G	24180567.80	24180567.94	24180568.07	0.1895	0.0733
Earth	61495-09-05 17:17 G	24181895.02	24181895.22	24181895.42	0.1909	0.0523
Moon	61495-09-05 23:31 G	24181895.30	24181895.48	24181895.67	0.1909	0.0387 *
Mercury	61498-09-13 08:10 G	24182998.78	24182998.84	24182998.89	0.1635	0.1453
Mercury	61508-02-04 17:46 G	24186429.13	24186429.24	24186429.36	0.1632	0.0653
Venus	61510-07-12 15:07 G	24187317.97	24187318.13	24187318.29	0.1861	0.0773
Venus	61515-02-19 20:10 G	24189001.25	24189001.34	24189001.43	0.1670	0.1392

Mercury	61517-06-27 03:22 G	24189859.51	24189859.64	24189859.77	0.1629	0.0164
Mercury	61522-02-26 10:19 G	24191564.83	24191564.93	24191565.04	0.1891	0.1240
Mercury	61526-11-17 12:43 G	24193289.93	24193290.03	24193290.14	0.1627	0.0985
Mercury	61531-07-19 10:48 G	24194994.81	24194994.95	24194995.09	0.1895	0.0531
Mercury	61538-03-15 08:10 G	24197425.82	24197425.84	24197425.87	0.1634	0.1584
Venus	61547-02-18 15:50 G	24200688.03	24200688.16	24200688.30	0.1662	0.1055
Mercury	61547-08-05 18:00 G	24200856.13	24200856.25	24200856.36	0.1632	0.0781
Mercury	61556-12-26 03:36 G	24204286.52	24204286.65	24204286.78	0.1630	0.0041
Mercury	61561-08-27 10:48 G	24205991.86	24205991.95	24205992.04	0.1892	0.1440
Mercury	61566-05-18 12:58 G	24207716.93	24207717.04	24207717.15	0.1627	0.0846
Mercury	61571-01-17 11:17 G	24209421.83	24209421.97	24209422.11	0.1895	0.0325
Venus	61576-05-08 18:58 G	24211360.11	24211360.29	24211360.46	0.1857	0.0045
Mercury	61587-02-03 18:00 G	24215283.15	24215283.25	24215283.36	0.1632	0.0914
Mercury	61596-06-26 03:36 G	24218713.52	24218713.65	24218713.78	0.1629	0.0102
Earth	61598-03-07 20:10 G	24219333.16	24219333.34	24219333.52	0.1615	0.0221
Moon	61598-03-08 02:10 G	24219333.41	24219333.59	24219333.77	0.1615	0.0540 *
Mercury	61601-02-25 11:02 G	24220418.89	24220418.96	24220419.03	0.1891	0.1630
Mercury	61605-11-16 13:12 G	24222143.93	24222144.05	24222144.16	0.1627	0.0716
Mercury	61610-07-18 11:17 G	24223848.83	24223848.97	24223849.12	0.1895	0.0169
Venus	61612-12-16 03:22 G	24224730.49	24224730.64	24224730.80	0.1665	0.0756
Mercury	61615-04-08 22:34 G	24225574.40	24225574.44	24225574.48	0.1625	0.1535
Mercury	61619-12-08 12:43 G	24227279.00	24227279.03	24227279.06	0.1898	0.1843
Mercury	61626-08-04 18:14 G	24229710.16	24229710.26	24229710.35	0.1632	0.1044
Mercury	61635-12-26 03:50 G	24233140.53	24233140.66	24233140.78	0.1629	0.0240
Mercury	61640-08-26 11:17 G	24234845.94	24234845.97	24234846.01	0.1891	0.1819
Venus	61642-03-05 23:17 G	24235402.31	24235402.47	24235402.63	0.1854	0.0711
Mercury	61645-05-17 13:12 G	24236570.93	24236571.05	24236571.17	0.1627	0.0578
Mercury	61650-01-16 12:00 G	24238275.85	24238276.00	24238276.14	0.1895	0.0063
Mercury	61654-10-07 22:34 G	24240001.38	24240001.44	24240001.51	0.1625	0.1403
Mercury	61659-06-08 12:29 G	24241705.96	24241706.02	24241706.09	0.1898	0.1688

Mercury	61666-02-02 18:14 G	24244137.17	24244137.26	24244137.35	0.1632	0.1171
Mercury	61675-06-26 03:50 G	24247567.54	24247567.66	24247567.79	0.1630	0.0370
Venus	61678-10-13 14:53 G	24248772.95	24248773.12	24248773.29	0.1667	0.0451
Mercury	61684-11-15 13:26 G	24250997.93	24250998.06	24250998.18	0.1627	0.0446
Mercury	61689-07-17 12:14 G	24252702.86	24252703.01	24252703.15	0.1895	0.0246
Mercury	61694-04-07 22:48 G	24254428.37	24254428.45	24254428.53	0.1625	0.1263
Mercury	61698-12-07 12:58 G	24256132.96	24256133.04	24256133.13	0.1898	0.1485
Mercury	61705-08-04 18:14 G	24258564.19	24258564.26	24258564.34	0.1632	0.1303
Venus	61708-01-02 03:22 G	24259444.54	24259444.64	24259444.75	0.1850	0.1444
Mercury	61714-12-26 03:50 G	24261994.54	24261994.66	24261994.79	0.1629	0.0500
Mercury	61724-05-17 13:26 G	24265424.93	24265425.06	24265425.19	0.1627	0.0312
Mercury	61729-01-16 12:29 G	24267129.88	24267130.02	24267130.16	0.1895	0.0427
Mercury	61733-10-07 23:02 G	24268855.36	24268855.46	24268855.55	0.1625	0.1129
Mercury	61738-06-08 13:26 G	24270559.96	24270560.06	24270560.17	0.1898	0.1281
Venus	61744-08-11 01:55 G	24272815.41	24272815.58	24272815.76	0.1670	0.0145
Mercury	61745-02-02 18:29 G	24272991.21	24272991.27	24272991.33	0.1632	0.1432
Mercury	61754-06-26 04:05 G	24276421.55	24276421.67	24276421.79	0.1629	0.0632
Mercury	61763-11-16 13:41 G	24279851.94	24279852.07	24279852.19	0.1627	0.0186
Mercury	61768-07-17 12:43 G	24281556.90	24281557.03	24281557.17	0.1895	0.0631
Mercury	61773-04-07 23:02 G	24283282.36	24283282.46	24283282.56	0.1625	0.0995
Mercury	61777-12-07 13:26 G	24284986.95	24284987.06	24284987.18	0.1898	0.1113
Mercury	61784-08-03 18:29 G	24287418.24	24287418.27	24287418.31	0.1632	0.1556
Mercury	61793-12-25 04:05 G	24290848.56	24290848.67	24290848.79	0.1630	0.0762
Moon	61803-03-08 22:19 G	24294208.33	24294208.43	24294208.53	0.1616	0.1334
Earth	61803-03-09 03:50 G	24294208.52	24294208.66	24294208.80	0.1616	0.1017 *
Mercury	61803-05-18 13:41 G	24294278.94	24294279.07	24294279.20	0.1627	0.0049
Mercury	61808-01-17 13:12 G	24295983.92	24295984.05	24295984.18	0.1895	0.0829
Venus	61810-06-09 13:26 G	24296857.89	24296858.06	24296858.24	0.1672	0.0176
Mercury	61812-10-07 23:17 G	24297709.36	24297709.47	24297709.58	0.1625	0.0859
Mercury	61817-06-08 13:55 G	24299413.95	24299414.08	24299414.20	0.1898	0.0923

Mercury	61833-06-26 04:19 G	24305275.57	24305275.68	24305275.78	0.1629	0.0889
Mercury	61842-11-16 13:55 G	24308705.95	24308706.08	24308706.20	0.1627	0.0102
Mercury	61847-07-18 13:12 G	24310410.93	24310411.05	24310411.18	0.1895	0.0999
Mercury	61852-04-07 23:17 G	24312136.36	24312136.47	24312136.59	0.1625	0.0725
Mercury	61856-12-07 14:24 G	24313840.97	24313841.10	24313841.23	0.1898	0.0708
Mercury	61861-08-29 08:38 G	24315566.82	24315566.86	24315566.90	0.1623	0.1545
Venus	61871-08-27 06:00 G	24319216.62	24319216.75	24319216.88	0.1854	0.1213
Mercury	61872-12-25 04:19 G	24319702.58	24319702.68	24319702.78	0.1629	0.1022
Venus	61876-04-06 00:14 G	24320900.35	24320900.51	24320900.68	0.1675	0.0500
Moon	61882-03-10 23:02 G	24323065.33	24323065.46	24323065.59	0.1615	0.1166
Earth	61882-03-11 04:05 G	24323065.53	24323065.67	24323065.80	0.1615	0.1098 *
Mercury	61882-05-17 13:55 G	24323132.95	24323133.08	24323133.21	0.1627	0.0219
Mercury	61887-01-16 13:55 G	24324837.97	24324838.08	24324838.19	0.1895	0.1211
Mercury	61891-10-07 23:17 G	24326563.35	24326563.47	24326563.59	0.1625	0.0597
Mercury	61896-06-07 14:24 G	24328267.96	24328268.10	24328268.23	0.1898	0.0556
Mercury	61901-02-28 08:53 G	24329993.80	24329993.87	24329993.93	0.1623	0.1411
Mercury	61912-06-26 04:34 G	24334129.60	24334129.69	24334129.78	0.1630	0.1150
Mercury	61921-11-16 13:55 G	24337559.96	24337560.08	24337560.21	0.1627	0.0354
Mercury	61926-07-18 14:10 G	24339264.99	24339265.09	24339265.18	0.1895	0.1394
Mercury	61931-04-08 23:31 G	24340990.36	24340990.48	24340990.61	0.1625	0.0458
Mercury	61935-12-08 14:53 G	24342694.98	24342695.12	24342695.26	0.1898	0.0350
Venus	61937-06-24 10:19 G	24343258.76	24343258.93	24343259.10	0.1850	0.0491
Mercury	61940-08-29 08:53 G	24344420.79	24344420.87	24344420.95	0.1623	0.1277
Venus	61942-02-02 11:31 G	24344942.83	24344942.98	24344943.14	0.1677	0.0816
Mercury	61951-12-26 04:34 G	24348556.61	24348556.69	24348556.77	0.1629	0.1274
Mercury	61961-05-17 14:10 G	24351986.97	24351987.09	24351987.21	0.1627	0.0479
Mercury	61966-01-16 14:24 G	24353692.02	24353692.10	24353692.18	0.1895	0.1580
Mercury	61970-10-07 23:46 G	24355417.36	24355417.49	24355417.61	0.1625	0.0329
Venus	61974-02-01 07:55 G	24356629.83	24356629.83	24356629.84	0.1670	0.1668
Mercury	61975-06-08 15:07 G	24357121.99	24357122.13	24357122.28	0.1898	0.0155

Mercury	61980-02-28 09:07 G	24358847.79	24358847.88	24358847.97	0.1623	0.1139
Mercury	61984-10-28 16:05 G	24360552.15	24360552.17	24360552.19	0.1901	0.1872
Mercury	61991-06-26 04:48 G	24362983.63	24362983.70	24362983.76	0.1629	0.1407
Mercury	62000-11-15 14:10 G	24366413.98	24366414.09	24366414.21	0.1627	0.0611

63RD MILLENNIUM CE

This is a list of transits visible from Mars in the 63rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	62003-04-21 14:38 G		24367300.93	24367301.11	24367301.28	0.1847	0.0241	
Mercury	62005-07-17 14:38 G		24368119.07	24368119.11	24368119.16	0.1895	0.1779	
Venus	62007-11-30 22:19 G		24368985.31	24368985.43	24368985.56	0.1680	0.1151	
Mercury	62010-04-07 23:46 G		24369844.36	24369844.49	24369844.62	0.1625	0.0195	
Mercury	62014-12-07 15:22 G		24371548.99	24371549.14	24371549.28	0.1898	0.0059	
Mercury	62019-08-29 09:07 G		24373274.78	24373274.88	24373274.98	0.1623	0.1008	
Mercury	62024-04-28 16:19 G		24374979.12	24374979.18	24374979.25	0.1901	0.1679	
Mercury	62030-12-25 04:48 G		24377410.66	24377410.70	24377410.74	0.1630	0.1533	
Venus	62039-11-29 19:12 G		24380672.20	24380672.30	24380672.40	0.1672	0.1357	
Mercury	62040-05-16 14:24 G		24380840.99	24380841.10	24380841.21	0.1627	0.0742	
Mercury	62049-10-07 00:00 G		24384271.37	24384271.50	24384271.63	0.1625	0.0075	
Mercury	62054-06-07 15:36 G		24385976.01	24385976.15	24385976.29	0.1898	0.0210	
Mercury	62059-02-27 09:07 G		24387701.78	24387701.88	24387701.99	0.1623	0.0877	
Mercury	62063-10-28 16:34 G		24389406.10	24389406.19	24389406.28	0.1901	0.1497	
Venus	62069-02-15 19:12 G		24391343.15	24391343.30	24391343.46	0.1843	0.0932	

Venus	62073-09-27 09:22 G	24393027.81	24393027.89	24393027.97	0.1683	0.1478
Mercury	62079-11-15 14:24 G	24395268.00	24395268.10	24395268.21	0.1627	0.0868
Earth	62087-03-11 11:02 G	24397940.78	24397940.96	24397941.15	0.1617	0.0161
Moon	62087-03-11 14:53 G	24397940.94	24397941.12	24397941.29	0.1617	0.0302 *
Mercury	62089-04-07 00:00 G	24398698.37	24398698.50	24398698.63	0.1625	0.0070
Mercury	62093-12-06 16:05 G	24400403.03	24400403.17	24400403.31	0.1898	0.0421
Mercury	62098-08-28 09:22 G	24402128.78	24402128.89	24402129.01	0.1623	0.0738
Mercury	62103-04-29 16:48 G	24403833.10	24403833.20	24403833.30	0.1901	0.1316
Venus	62105-09-27 06:14 G	24404714.63	24404714.76	24404714.90	0.1675	0.1041
Mercury	62108-01-19 18:43 G	24405559.25	24405559.28	24405559.31	0.1621	0.1557
Mercury	62119-05-17 14:38 G	24409695.01	24409695.11	24409695.21	0.1627	0.0997
Mercury	62128-10-07 00:00 G	24413125.38	24413125.50	24413125.63	0.1625	0.0205
Mercury	62133-06-07 16:05 G	24414830.03	24414830.17	24414830.31	0.1898	0.0575
Venus	62134-12-14 23:46 G	24415385.42	24415385.49	24415385.57	0.1840	0.1633
Mercury	62138-02-27 09:36 G	24416555.78	24416555.90	24416556.02	0.1623	0.0607
Moon	62142-09-11 11:31 G	24418212.76	24418212.98	24418213.20	0.1907	0.0290
Earth	62142-09-11 19:12 G	24418213.09	24418213.30	24418213.50	0.1907	0.0354 *
Mercury	62142-10-28 17:17 G	24418260.10	24418260.22	24418260.33	0.1901	0.1117
Mercury	62147-07-20 18:58 G	24419986.22	24419986.29	24419986.35	0.1622	0.1423
Mercury	62158-11-15 14:38 G	24424122.02	24424122.11	24424122.20	0.1627	0.1127
Mercury	62168-04-07 00:14 G	24427552.38	24427552.51	24427552.64	0.1625	0.0332
Venus	62171-07-25 17:17 G	24428757.06	24428757.22	24428757.38	0.1677	0.0718
Mercury	62172-12-06 16:34 G	24429257.06	24429257.19	24429257.32	0.1898	0.0783
Mercury	62177-08-28 09:36 G	24430982.78	24430982.90	24430983.02	0.1623	0.0477
Mercury	62182-04-28 17:17 G	24432687.10	24432687.22	24432687.35	0.1901	0.0944
Mercury	62187-01-18 18:58 G	24434413.21	24434413.29	24434413.37	0.1622	0.1289
Mercury	62198-05-16 14:53 G	24438549.04	24438549.12	24438549.20	0.1627	0.1255
Mercury	62207-10-08 00:14 G	24441979.39	24441979.51	24441979.64	0.1625	0.0465
Mercury	62212-06-07 17:02 G	24443684.08	24443684.21	24443684.33	0.1898	0.0980
Mercury	62217-02-27 09:50 G	24445409.78	24445409.91	24445410.04	0.1623	0.0340

Mercury	62221-10-28 17:46 G	24447114.10	24447114.24	24447114.37	0.1901	0.0760
Mercury	62226-07-20 19:12 G	24448840.21	24448840.30	24448840.39	0.1622	0.1154
Venus	62232-10-11 21:22 G	24451115.32	24451115.39	24451115.46	0.1847	0.1677
Venus	62237-05-23 04:34 G	24452799.52	24452799.69	24452799.85	0.1680	0.0403
Mercury	62237-11-15 14:53 G	24452976.06	24452976.12	24452976.19	0.1627	0.1380
Mercury	62247-04-08 00:29 G	24456406.40	24456406.52	24456406.64	0.1625	0.0590
Mercury	62251-12-07 17:02 G	24458111.09	24458111.21	24458111.32	0.1898	0.1145
Mercury	62256-08-28 09:50 G	24459836.78	24459836.91	24459837.04	0.1623	0.0212
Mercury	62261-04-28 18:00 G	24461541.12	24461541.25	24461541.39	0.1901	0.0560
Mercury	62266-01-18 19:12 G	24463267.20	24463267.30	24463267.40	0.1622	0.1018
Mercury	62277-05-16 15:07 G	24467403.08	24467403.13	24467403.17	0.1627	0.1511
Mercury	62286-10-07 00:29 G	24470833.41	24470833.52	24470833.64	0.1625	0.0721
Mercury	62291-06-07 17:17 G	24472538.12	24472538.22	24472538.33	0.1898	0.1343
Moon	62292-03-11 13:55 G	24472815.97	24472816.08	24472816.19	0.1619	0.1322
Earth	62292-03-11 18:14 G	24472816.19	24472816.26	24472816.34	0.1619	0.1452 *
Mercury	62296-02-27 10:05 G	24474263.79	24474263.92	24474264.05	0.1623	0.0088
Venus	62298-08-09 01:41 G	24475157.43	24475157.57	24475157.72	0.1843	0.0961
Mercury	62300-10-28 18:14 G	24475968.12	24475968.26	24475968.40	0.1901	0.0385
Venus	62303-03-21 14:53 G	24476841.95	24476842.12	24476842.30	0.1683	0.0070
Mercury	62305-07-20 19:26 G	24477694.20	24477694.31	24477694.42	0.1622	0.0887
Mercury	62326-04-08 00:43 G	24485260.42	24485260.53	24485260.64	0.1625	0.0851
Mercury	62330-12-07 18:00 G	24486965.16	24486965.25	24486965.33	0.1898	0.1551
Mercury	62335-08-29 10:05 G	24488690.79	24488690.92	24488691.05	0.1623	0.0070
Mercury	62340-04-28 18:29 G	24490395.13	24490395.27	24490395.41	0.1901	0.0201
Mercury	62345-01-18 19:26 G	24492121.20	24492121.31	24492121.43	0.1622	0.0754
Mercury	62349-09-18 19:41 G	24493825.30	24493825.32	24493825.34	0.1903	0.1884
Mercury	62354-06-11 04:34 G	24495551.67	24495551.69	24495551.72	0.1620	0.1572
Venus	62364-06-06 06:43 G	24499199.61	24499199.78	24499199.95	0.1840	0.0268
Mercury	62365-10-07 00:43 G	24499687.43	24499687.53	24499687.63	0.1625	0.0977
Venus	62369-01-16 02:10 G	24500884.42	24500884.59	24500884.76	0.1685	0.0260

Mercury	62370-06-07 17:46 G	24501392.18	24501392.24	24501392.31	0.1898	0.1707
Earth	62371-03-15 18:29 G	24501673.10	24501673.27	24501673.44	0.1618	0.0708
Moon	62371-03-15 21:50 G	24501673.23	24501673.41	24501673.59	0.1618	0.0591 *
Mercury	62375-02-27 10:19 G	24503117.80	24503117.93	24503118.06	0.1623	0.0186
Mercury	62379-10-28 18:58 G	24504822.15	24504822.29	24504822.43	0.1901	0.0007
Mercury	62384-07-19 19:41 G	24506548.20	24506548.32	24506548.44	0.1622	0.0619
Mercury	62389-03-19 19:55 G	24508252.27	24508252.33	24508252.40	0.1903	0.1694
Mercury	62393-12-10 04:48 G	24509978.65	24509978.70	24509978.76	0.1620	0.1432
Mercury	62405-04-07 00:58 G	24514114.45	24514114.54	24514114.63	0.1625	0.1107
Mercury	62414-08-28 10:19 G	24517544.80	24517544.93	24517545.06	0.1623	0.0312
Mercury	62419-04-28 18:58 G	24519249.15	24519249.29	24519249.44	0.1901	0.0182
Mercury	62424-01-18 19:55 G	24520975.20	24520975.33	24520975.45	0.1622	0.0489
Mercury	62428-09-17 20:10 G	24522679.25	24522679.34	24522679.42	0.1903	0.1531
Venus	62430-04-03 11:17 G	24523241.80	24523241.97	24523242.14	0.1836	0.0416
Mercury	62433-06-10 05:02 G	24524405.63	24524405.71	24524405.79	0.1620	0.1297
Venus	62434-11-13 12:43 G	24524926.87	24524927.03	24524927.19	0.1688	0.0607
Mercury	62444-10-06 00:58 G	24528541.46	24528541.54	24528541.62	0.1625	0.1235
Mercury	62454-02-26 10:34 G	24531971.82	24531971.94	24531972.06	0.1623	0.0448
Mercury	62458-10-27 19:26 G	24533676.17	24533676.31	24533676.45	0.1901	0.0360
Mercury	62463-07-19 19:55 G	24535402.20	24535402.33	24535402.46	0.1622	0.0354
Mercury	62468-03-18 20:38 G	24537106.26	24537106.36	24537106.46	0.1903	0.1328
Mercury	62472-12-09 05:02 G	24538832.62	24538832.71	24538832.80	0.1620	0.1167
Mercury	62484-04-06 01:12 G	24542968.48	24542968.55	24542968.62	0.1625	0.1361
Mercury	62493-08-27 10:34 G	24546398.82	24546398.94	24546399.07	0.1623	0.0578
Venus	62496-01-29 16:48 G	24547284.06	24547284.20	24547284.34	0.1833	0.1069
Mercury	62498-04-27 19:55 G	24548103.19	24548103.33	24548103.47	0.1901	0.0565
Venus	62500-09-10 23:17 G	24548969.33	24548969.47	24548969.61	0.1691	0.0943
Mercury	62503-01-18 20:10 G	24549829.21	24549829.34	24549829.47	0.1622	0.0222
Mercury	62507-09-18 20:38 G	24551533.25	24551533.36	24551533.48	0.1903	0.1150
Mercury	62512-06-10 05:17 G	24553259.62	24553259.72	24553259.82	0.1620	0.1028

Mercury	62523-10-07 01:12 G	24557395.50	24557395.55	24557395.60	0.1625	0.1490
Venus	62532-09-09 21:07 G	24560656.34	24560656.38	24560656.42	0.1683	0.1620
Mercury	62533-02-26 10:48 G	24560825.83	24560825.95	24560826.06	0.1623	0.0704
Mercury	62537-10-27 19:55 G	24562530.20	24562530.33	24562530.46	0.1901	0.0732
Mercury	62542-07-19 20:10 G	24564256.21	24564256.34	24564256.47	0.1622	0.0093
Mercury	62547-03-19 20:53 G	24565960.25	24565960.37	24565960.50	0.1903	0.0973
Mercury	62551-12-10 05:31 G	24567686.62	24567686.73	24567686.84	0.1620	0.0895
Venus	62561-11-26 21:36 G	24571326.35	24571326.40	24571326.46	0.1829	0.1733
Mercury	62563-04-07 01:26 G	24571822.55	24571822.56	24571822.57	0.1625	0.1618
Venus	62566-07-09 09:50 G	24573011.80	24573011.91	24573012.02	0.1694	0.1296
Mercury	62572-08-27 11:02 G	24575252.85	24575252.96	24575253.07	0.1623	0.0837
Moon	62576-03-14 21:22 G	24576548.22	24576548.39	24576548.56	0.1620	0.0462
Earth	62576-03-15 01:41 G	24576548.40	24576548.57	24576548.75	0.1620	0.0586 *
Mercury	62577-04-27 20:24 G	24576957.22	24576957.35	24576957.47	0.1901	0.0922
Mercury	62582-01-17 20:24 G	24578683.22	24578683.35	24578683.48	0.1622	0.0054
Mercury	62586-09-17 21:22 G	24580387.26	24580387.39	24580387.52	0.1903	0.0782
Mercury	62591-06-10 05:31 G	24582113.62	24582113.73	24582113.85	0.1620	0.0763
Venus	62598-07-08 07:55 G	24584698.73	24584698.83	24584698.94	0.1686	0.1295
Mercury	62600-10-31 14:53 G	24585544.09	24585544.12	24585544.14	0.1619	0.1574
Mercury	62612-02-27 11:02 G	24589679.86	24589679.96	24589680.06	0.1623	0.0964
Mercury	62616-10-27 20:53 G	24591384.25	24591384.37	24591384.48	0.1901	0.1126
Mercury	62621-07-19 20:24 G	24593110.22	24593110.35	24593110.48	0.1622	0.0181
Mercury	62626-03-19 21:36 G	24594814.27	24594814.40	24594814.54	0.1903	0.0590
Mercury	62630-12-10 05:46 G	24596540.62	24596540.74	24596540.86	0.1620	0.0627
Venus	62632-05-06 20:10 G	24597054.31	24597054.34	24597054.38	0.1697	0.1650
Mercury	62640-05-01 14:53 G	24599971.07	24599971.12	24599971.18	0.1619	0.1440
Mercury	62651-08-28 11:02 G	24604106.87	24604106.96	24604107.06	0.1623	0.1090
Moon	62655-03-18 19:55 G	24605405.23	24605405.33	24605405.44	0.1619	0.1321
Earth	62655-03-19 02:24 G	24605405.57	24605405.60	24605405.63	0.1619	0.1592
Mercury	62656-04-27 20:53 G	24605811.26	24605811.37	24605811.47	0.1901	0.1293

Venus	62659-09-24 18:29 G	24607056.17	24607056.27	24607056.37	0.1836	0.1493
Mercury	62661-01-17 20:38 G	24607537.23	24607537.36	24607537.49	0.1622	0.0305
Venus	62664-05-05 18:58 G	24608741.15	24608741.29	24608741.43	0.1688	0.0966
Mercury	62665-09-17 21:50 G	24609241.27	24609241.41	24609241.55	0.1903	0.0421
Mercury	62670-06-10 06:00 G	24610967.62	24610967.75	24610967.87	0.1620	0.0496
Mercury	62679-10-31 15:07 G	24614398.05	24614398.13	24614398.21	0.1619	0.1301
Mercury	62691-02-26 11:17 G	24618533.89	24618533.97	24618534.06	0.1623	0.1224
Mercury	62695-10-27 21:07 G	24620238.30	24620238.38	24620238.47	0.1901	0.1484
Mercury	62700-07-19 20:38 G	24621964.24	24621964.36	24621964.49	0.1622	0.0437
Mercury	62705-03-19 22:19 G	24623668.28	24623668.43	24623668.57	0.1903	0.0227
Mercury	62709-12-10 06:00 G	24625394.62	24625394.75	24625394.88	0.1620	0.0364
Mercury	62714-08-09 23:17 G	24627098.47	24627098.47	24627098.48	0.1905	0.1898
Mercury	62719-05-02 15:22 G	24628825.05	24628825.14	24628825.23	0.1619	0.1167
Venus	62725-07-22 23:17 G	24631098.32	24631098.47	24631098.63	0.1832	0.0811
Venus	62730-03-04 05:17 G	24632783.56	24632783.72	24632783.88	0.1691	0.0622
Mercury	62730-08-28 11:31 G	24632960.91	24632960.98	24632961.05	0.1623	0.1349
Mercury	62735-04-28 21:36 G	24634665.34	24634665.40	24634665.47	0.1901	0.1692
Mercury	62740-01-18 20:53 G	24636391.25	24636391.37	24636391.49	0.1622	0.0567
Mercury	62744-09-17 22:34 G	24638095.29	24638095.44	24638095.58	0.1903	0.0071
Mercury	62749-06-10 06:14 G	24639821.63	24639821.76	24639821.89	0.1620	0.0228
Mercury	62754-02-08 00:00 G	24641525.43	24641525.50	24641525.56	0.1905	0.1696
Mercury	62758-10-31 15:22 G	24643252.04	24643252.14	24643252.24	0.1619	0.1034
Mercury	62770-02-26 11:31 G	24647387.93	24647387.98	24647388.03	0.1623	0.1474
Mercury	62774-10-27 21:50 G	24649092.38	24649092.41	24649092.44	0.1901	0.1853
Mercury	62779-07-19 21:07 G	24650818.26	24650818.38	24650818.49	0.1622	0.0697
Mercury	62784-03-18 22:48 G	24652522.31	24652522.45	24652522.59	0.1903	0.0146
Mercury	62788-12-09 06:29 G	24654248.63	24654248.77	24654248.90	0.1620	0.0111
Earth	62789-09-17 22:34 G	24654531.30	24654531.44	24654531.58	0.1903	0.1368
Moon	62789-09-18 06:00 G	24654531.73	24654531.75	24654531.79	0.1903	0.1873
Venus	62791-05-20 04:48 G	24655140.53	24655140.70	24655140.88	0.1829	0.0164

Mercury	62793-08-09 00:14 G	24655952.42	24655952.51	24655952.59	0.1905	0.1506
Venus	62795-12-30 16:19 G	24656826.01	24656826.18	24656826.35	0.1694	0.0300
Mercury	62798-05-01 15:36 G	24657679.04	24657679.15	24657679.26	0.1619	0.0895
Mercury	62809-08-27 11:46 G	24661814.97	24661814.99	24661815.00	0.1623	0.1604
Mercury	62819-01-17 21:07 G	24665245.27	24665245.38	24665245.49	0.1622	0.0825
Mercury	62823-09-17 23:02 G	24666949.32	24666949.46	24666949.60	0.1903	0.0332
Mercury	62828-06-09 06:29 G	24668675.64	24668675.77	24668675.90	0.1620	0.0035
Mercury	62833-02-07 00:14 G	24670379.41	24670379.51	24670379.61	0.1905	0.1342
Mercury	62837-10-30 15:50 G	24672106.04	24672106.16	24672106.27	0.1619	0.0764
Mercury	62847-03-23 00:58 G	24675536.51	24675536.54	24675536.56	0.1618	0.1573
Venus	62857-03-16 10:05 G	24679182.75	24679182.92	24679183.09	0.1825	0.0484
Mercury	62858-07-18 21:22 G	24679672.28	24679672.39	24679672.49	0.1622	0.0956
Earth	62860-03-18 09:22 G	24680280.70	24680280.89	24680281.07	0.1622	0.0300
Moon	62860-03-18 14:38 G	24680280.94	24680281.11	24680281.28	0.1622	0.0578 *
Venus	62861-10-27 02:38 G	24680868.44	24680868.61	24680868.79	0.1697	0.0063
Mercury	62863-03-18 23:31 G	24681376.34	24681376.48	24681376.61	0.1903	0.0525
Mercury	62867-12-09 06:43 G	24683102.65	24683102.78	24683102.91	0.1620	0.0168
Mercury	62872-08-08 00:43 G	24684806.42	24684806.53	24684806.64	0.1905	0.1154
Mercury	62877-04-30 15:50 G	24686533.04	24686533.16	24686533.28	0.1619	0.0632
Mercury	62886-09-21 00:58 G	24689963.49	24689963.54	24689963.60	0.1618	0.1439
Mercury	62898-01-16 21:22 G	24694099.30	24694099.39	24694099.49	0.1622	0.1084
Mercury	62902-09-17 23:31 G	24695803.35	24695803.48	24695803.62	0.1903	0.0700
Mercury	62907-06-10 06:43 G	24697529.66	24697529.78	24697529.91	0.1620	0.0302
Mercury	62912-02-08 01:12 G	24699233.43	24699233.55	24699233.67	0.1905	0.0952
Mercury	62916-10-30 16:05 G	24700960.05	24700960.17	24700960.30	0.1619	0.0495
Venus	62923-01-12 16:05 G	24703225.03	24703225.17	24703225.31	0.1821	0.1097
Mercury	62926-03-23 01:12 G	24704390.47	24704390.55	24704390.63	0.1618	0.1302
Venus	62927-08-25 13:12 G	24704910.88	24704911.05	24704911.22	0.1700	0.0399
Mercury	62937-07-18 21:36 G	24708526.31	24708526.40	24708526.48	0.1622	0.1210
Mercury	62942-03-19 00:00 G	24710230.38	24710230.50	24710230.63	0.1903	0.0895

Mercury	62946-12-09 06:58 G	24711956.66	24711956.79	24711956.92	0.1620	0.0427
Mercury	62951-08-09 01:12 G	24713660.42	24713660.55	24713660.67	0.1905	0.0802
Mercury	62956-04-30 16:19 G	24715387.05	24715387.18	24715387.31	0.1619	0.0363
Mercury	62965-09-21 01:26 G	24718817.47	24718817.56	24718817.65	0.1618	0.1166
Mercury	62977-01-16 21:50 G	24722953.33	24722953.41	24722953.48	0.1622	0.1342
Mercury	62981-09-17 00:14 G	24724657.39	24724657.51	24724657.63	0.1903	0.1072
Mercury	62986-06-09 07:12 G	24726383.68	24726383.80	24726383.92	0.1620	0.0561
Venus	62988-11-08 21:22 G	24727267.34	24727267.39	24727267.45	0.1818	0.1725
Mercury	62991-02-07 01:41 G	24728087.43	24728087.57	24728087.70	0.1905	0.0595
Venus	62993-06-21 23:31 G	24728953.33	24728953.48	24728953.64	0.1703	0.0762
Mercury	62995-10-30 16:19 G	24729814.05	24729814.18	24729814.31	0.1619	0.0236

64TH MILLENNIUM CE

This is a list of transits visible from Mars in the 64th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	63005-03-23 01:26 G	24733244.46	24733244.56	24733244.67	0.1618	0.1035		
Mercury	63016-07-18 21:50 G	24737380.36	24737380.41	24737380.46	0.1622	0.1467		
Mercury	63021-03-19 00:43 G	24739084.42	24739084.53	24739084.63	0.1903	0.1267		
Mercury	63025-12-09 07:12 G	24740810.69	24740810.80	24740810.92	0.1620	0.0691		
Mercury	63030-08-09 01:55 G	24742514.44	24742514.58	24742514.72	0.1905	0.0409		
Mercury	63035-05-01 16:34 G	24744241.06	24744241.19	24744241.32	0.1619	0.0102		
Mercury	63044-09-21 01:41 G	24747671.46	24747671.57	24747671.68	0.1618	0.0899		
Mercury	63056-01-17 21:50 G	24751807.40	24751807.41	24751807.44	0.1622	0.1594		

Venus	63059-04-20 09:36 G	24752995.77	24752995.90	24752996.03	0.1706	0.1130
Mercury	63060-09-17 00:58 G	24753511.45	24753511.54	24753511.63	0.1903	0.1447
Moon	63065-03-19 10:48 G	24755155.84	24755155.95	24755156.06	0.1625	0.1297
Earth	63065-03-19 16:19 G	24755156.03	24755156.18	24755156.33	0.1625	0.0987 *
Mercury	63065-06-09 07:26 G	24755237.70	24755237.81	24755237.92	0.1620	0.0818
Mercury	63070-02-07 01:55 G	24756941.44	24756941.58	24756941.73	0.1905	0.0251
Moon	63073-09-18 18:43 G	24758261.07	24758261.28	24758261.49	0.1899	0.0810
Earth	63073-09-18 19:26 G	24758261.14	24758261.31	24758261.47	0.1899	0.1093 *
Mercury	63074-10-30 16:48 G	24758668.07	24758668.20	24758668.33	0.1619	0.0046
Mercury	63079-06-30 03:50 G	24760371.63	24760371.66	24760371.69	0.1907	0.1853
Mercury	63084-03-22 01:55 G	24762098.46	24762098.58	24762098.70	0.1618	0.0761
Venus	63086-09-06 17:31 G	24762997.13	24762997.23	24762997.34	0.1825	0.1420
Venus	63091-04-19 08:53 G	24764682.81	24764682.87	24764682.95	0.1697	0.1535
Mercury	63093-08-12 11:02 G	24765528.93	24765528.96	24765528.98	0.1617	0.1572
Mercury	63100-03-19 01:12 G	24767938.48	24767938.55	24767938.62	0.1903	0.1636
Mercury	63104-12-09 07:26 G	24769664.71	24769664.81	24769664.92	0.1620	0.0949
Mercury	63109-08-09 02:24 G	24771368.46	24771368.60	24771368.74	0.1905	0.0054
Mercury	63114-05-01 16:48 G	24773095.07	24773095.20	24773095.33	0.1619	0.0170
Mercury	63118-12-30 04:05 G	24774798.60	24774798.67	24774798.73	0.1906	0.1685
Mercury	63123-09-22 02:10 G	24776525.46	24776525.59	24776525.71	0.1618	0.0633
Venus	63125-02-15 19:41 G	24777038.24	24777038.32	24777038.40	0.1709	0.1503
Mercury	63133-02-11 11:17 G	24779955.91	24779955.97	24779956.02	0.1617	0.1437
Mercury	63139-09-18 01:41 G	24782365.53	24782365.57	24782365.60	0.1903	0.1821
Earth	63144-03-22 17:02 G	24784013.09	24784013.21	24784013.34	0.1624	0.1197
Moon	63144-03-22 17:46 G	24784013.13	24784013.24	24784013.35	0.1624	0.1353 *
Mercury	63144-06-09 07:41 G	24784091.73	24784091.82	24784091.92	0.1620	0.1078
Mercury	63149-02-07 02:53 G	24785795.48	24785795.62	24785795.76	0.1905	0.0148
Venus	63152-07-04 22:48 G	24787039.29	24787039.45	24787039.61	0.1821	0.0768
Mercury	63153-10-30 17:02 G	24787522.08	24787522.21	24787522.34	0.1619	0.0299
Venus	63157-02-14 19:26 G	24788725.19	24788725.31	24788725.43	0.1700	0.1186

Mercury	63158-06-30 04:19 G	24789225.59	24789225.68	24789225.76	0.1906	0.1510
Mercury	63163-03-23 02:10 G	24790952.47	24790952.59	24790952.72	0.1618	0.0499
Mercury	63172-08-12 11:17 G	24794382.89	24794382.97	24794383.05	0.1617	0.1304
Mercury	63183-12-09 07:55 G	24798518.74	24798518.83	24798518.91	0.1620	0.1204
Mercury	63188-08-08 02:53 G	24800222.48	24800222.62	24800222.76	0.1905	0.0300
Mercury	63193-04-30 17:17 G	24801949.09	24801949.22	24801949.34	0.1619	0.0428
Mercury	63197-12-29 04:48 G	24803652.60	24803652.70	24803652.80	0.1906	0.1306
Mercury	63202-09-21 02:24 G	24805379.47	24805379.60	24805379.73	0.1618	0.0363
Mercury	63212-02-11 11:31 G	24808809.89	24808809.98	24808810.07	0.1617	0.1165
Venus	63218-05-02 04:48 G	24811081.52	24811081.70	24811081.87	0.1818	0.0155
Venus	63222-12-13 06:14 G	24812767.61	24812767.76	24812767.91	0.1703	0.0851
Mercury	63223-06-09 07:55 G	24812945.76	24812945.83	24812945.91	0.1620	0.1333
Mercury	63228-02-07 03:22 G	24814649.50	24814649.64	24814649.78	0.1905	0.0505
Mercury	63232-10-29 17:17 G	24816376.10	24816376.22	24816376.34	0.1619	0.0554
Mercury	63237-06-29 04:34 G	24818079.58	24818079.69	24818079.81	0.1906	0.1154
Mercury	63242-03-22 02:38 G	24819806.48	24819806.61	24819806.74	0.1618	0.0234
Mercury	63251-08-12 11:46 G	24823236.89	24823236.99	24823237.09	0.1617	0.1032
Mercury	63262-12-08 08:10 G	24827372.79	24827372.84	24827372.89	0.1620	0.1459
Mercury	63267-08-08 03:36 G	24829076.52	24829076.65	24829076.78	0.1905	0.0687
Mercury	63272-04-29 17:31 G	24830803.11	24830803.23	24830803.35	0.1619	0.0687
Mercury	63276-12-28 05:02 G	24832506.59	24832506.71	24832506.83	0.1906	0.0964
Mercury	63281-09-20 02:38 G	24834233.48	24834233.61	24834233.75	0.1618	0.0110
Venus	63284-02-27 10:19 G	24835123.76	24835123.93	24835124.10	0.1814	0.0459
Venus	63288-10-09 16:05 G	24836810.01	24836810.17	24836810.34	0.1706	0.0485
Mercury	63291-02-10 11:46 G	24837663.88	24837663.99	24837664.10	0.1617	0.0900
Mercury	63302-06-09 08:10 G	24841799.82	24841799.84	24841799.87	0.1620	0.1585
Mercury	63307-02-07 03:50 G	24843503.53	24843503.66	24843503.78	0.1905	0.0854
Mercury	63311-10-30 17:46 G	24845230.12	24845230.24	24845230.35	0.1619	0.0816
Mercury	63316-06-29 05:31 G	24846933.60	24846933.73	24846933.86	0.1906	0.0772
Mercury	63321-03-22 02:53 G	24848660.49	24848660.62	24848660.75	0.1618	0.0038

Mercury	63330-08-12 12:00 G	24852090.89	24852091.00	24852091.12	0.1617	0.0765
Mercury	63340-01-02 20:53 G	24855521.35	24855521.37	24855521.40	0.1616	0.1574
Mercury	63346-08-08 04:05 G	24857930.56	24857930.67	24857930.79	0.1905	0.1047
Moon	63349-03-22 21:50 G	24858888.24	24858888.41	24858888.59	0.1627	0.0315
Earth	63349-03-22 23:46 G	24858888.30	24858888.49	24858888.68	0.1627	0.0107 *
Venus	63349-12-25 16:48 G	24859166.06	24859166.20	24859166.34	0.1810	0.1045
Mercury	63351-04-30 17:46 G	24859657.14	24859657.24	24859657.35	0.1619	0.0941
Venus	63354-08-08 02:24 G	24860852.43	24860852.60	24860852.78	0.1709	0.0135
Mercury	63355-12-29 05:31 G	24861360.60	24861360.73	24861360.86	0.1906	0.0607
Mercury	63360-09-20 03:07 G	24863087.50	24863087.63	24863087.76	0.1618	0.0164
Mercury	63370-02-10 12:14 G	24866517.89	24866518.01	24866518.13	0.1617	0.0631
Mercury	63379-07-03 21:07 G	24869948.33	24869948.38	24869948.44	0.1616	0.1435
Mercury	63386-02-06 04:34 G	24872357.58	24872357.69	24872357.80	0.1905	0.1240
Mercury	63390-10-29 18:00 G	24874084.15	24874084.25	24874084.35	0.1619	0.1071
Mercury	63395-06-29 05:46 G	24875787.60	24875787.74	24875787.88	0.1906	0.0433
Mercury	63400-03-22 03:07 G	24877514.50	24877514.63	24877514.76	0.1618	0.0293
Mercury	63409-08-12 12:14 G	24880944.89	24880945.01	24880945.14	0.1617	0.0504
Venus	63415-10-23 22:34 G	24883208.37	24883208.44	24883208.51	0.1806	0.1644
Mercury	63419-01-02 21:22 G	24884375.31	24884375.39	24884375.47	0.1616	0.1302
Venus	63420-06-05 12:29 G	24884894.85	24884895.02	24884895.19	0.1712	0.0245
Mercury	63425-08-08 04:34 G	24886784.59	24886784.69	24886784.79	0.1905	0.1392
Mercury	63430-04-30 18:00 G	24888511.17	24888511.25	24888511.34	0.1619	0.1199
Mercury	63434-12-29 06:15 G	24890214.62	24890214.76	24890214.90	0.1906	0.0232
Mercury	63439-09-21 03:22 G	24891941.51	24891941.64	24891941.77	0.1618	0.0423
Mercury	63444-05-20 07:55 G	24893644.80	24893644.83	24893644.86	0.1907	0.1856
Mercury	63449-02-10 12:29 G	24895371.89	24895372.02	24895372.15	0.1617	0.0368
Mercury	63458-07-03 21:36 G	24898802.31	24898802.40	24898802.49	0.1616	0.1171
Mercury	63465-02-06 05:03 G	24901211.64	24901211.71	24901211.79	0.1905	0.1598
Mercury	63469-10-29 18:15 G	24902938.18	24902938.26	24902938.33	0.1619	0.1322
Mercury	63474-06-29 06:15 G	24904641.62	24904641.76	24904641.90	0.1906	0.0079

Mercury	63479-03-22 03:36 G	24906368.52	24906368.65	24906368.77	0.1618	0.0552
Mercury	63483-11-19 08:10 G	24908071.78	24908071.84	24908071.90	0.1908	0.1680
Venus	63486-04-02 22:05 G	24908937.26	24908937.42	24908937.58	0.1716	0.0632
Mercury	63488-08-11 12:43 G	24909798.90	24909799.03	24909799.16	0.1617	0.0235
Mercury	63498-01-01 21:51 G	24913229.30	24913229.41	24913229.51	0.1616	0.1033
Mercury	63504-08-08 05:17 G	24915638.67	24915638.72	24915638.77	0.1905	0.1775
Mercury	63509-04-30 18:29 G	24917365.21	24917365.27	24917365.32	0.1619	0.1452
Venus	63513-08-20 17:46 G	24918938.13	24918938.24	24918938.35	0.1814	0.1405
Mercury	63513-12-29 06:43 G	24919068.64	24919068.78	24919068.92	0.1906	0.0114
Mercury	63518-09-21 03:36 G	24920795.53	24920795.65	24920795.77	0.1618	0.0678
Mercury	63523-05-21 08:24 G	24922498.77	24922498.85	24922498.93	0.1907	0.1503
Mercury	63528-02-11 12:58 G	24924225.90	24924226.04	24924226.17	0.1617	0.0116
Mercury	63537-07-03 21:51 G	24927656.30	24927656.41	24927656.52	0.1616	0.0902
Mercury	63548-10-29 18:29 G	24931792.24	24931792.27	24931792.30	0.1619	0.1575
Venus	63552-01-30 07:55 G	24932979.69	24932979.83	24932979.97	0.1719	0.1020
Mercury	63553-06-29 06:58 G	24933495.65	24933495.79	24933495.93	0.1906	0.0305
Earth	63554-03-24 05:03 G	24933763.63	24933763.71	24933763.79	0.1631	0.1479
Moon	63554-03-24 07:55 G	24933763.70	24933763.83	24933763.96	0.1631	0.1210 *
Mercury	63558-03-22 03:51 G	24935222.55	24935222.66	24935222.77	0.1618	0.0809
Mercury	63562-11-19 08:39 G	24936925.76	24936925.86	24936925.96	0.1907	0.1327
Mercury	63567-08-12 12:58 G	24938652.91	24938653.04	24938653.17	0.1617	0.0034
Mercury	63577-01-01 22:05 G	24942083.30	24942083.42	24942083.53	0.1616	0.0770
Venus	63579-06-17 23:03 G	24942980.31	24942980.46	24942980.62	0.1810	0.0776
Mercury	63586-05-25 06:58 G	24945513.76	24945513.79	24945513.82	0.1616	0.1576
Mercury	63592-12-28 07:12 G	24947922.66	24947922.80	24947922.93	0.1906	0.0465
Mercury	63597-09-20 03:51 G	24949649.56	24949649.66	24949649.77	0.1618	0.0934
Mercury	63602-05-20 08:53 G	24951352.76	24951352.87	24951352.98	0.1908	0.1154
Mercury	63607-02-10 13:12 G	24953079.92	24953080.05	24953080.18	0.1617	0.0157
Mercury	63616-07-02 22:19 G	24956510.30	24956510.43	24956510.55	0.1616	0.0636
Venus	63617-11-26 17:31 G	24957022.13	24957022.23	24957022.33	0.1722	0.1416

Mercury	63625-11-23 07:12 G	24959940.74	24959940.80	24959940.85	0.1615	0.1443
Mercury	63632-06-28 07:27 G	24962349.67	24962349.81	24962349.94	0.1906	0.0640
Earth	63633-03-26 06:15 G	24962620.59	24962620.76	24962620.92	0.1630	0.0742
Moon	63633-03-26 12:43 G	24962620.86	24962621.03	24962621.20	0.1629	0.0710 *
Mercury	63637-03-21 04:05 G	24964076.57	24964076.67	24964076.77	0.1618	0.1060
Mercury	63641-11-18 09:07 G	24965779.76	24965779.88	24965780.00	0.1907	0.0974
Venus	63645-04-14 05:17 G	24967022.55	24967022.72	24967022.90	0.1806	0.0200
Mercury	63646-08-11 13:12 G	24967506.92	24967507.05	24967507.18	0.1617	0.0288
Venus	63649-11-25 18:58 G	24968709.18	24968709.29	24968709.39	0.1712	0.1369
Mercury	63656-01-01 22:19 G	24970937.31	24970937.43	24970937.56	0.1616	0.0506
Mercury	63665-05-24 07:12 G	24974367.73	24974367.80	24974367.88	0.1616	0.1306
Mercury	63671-12-28 07:55 G	24976776.70	24976776.83	24976776.95	0.1906	0.0841
Mercury	63676-09-19 04:19 G	24978503.59	24978503.68	24978503.77	0.1618	0.1190
Mercury	63681-05-19 09:22 G	24980206.76	24980206.89	24980207.02	0.1907	0.0804
Mercury	63686-02-09 13:27 G	24981933.93	24981934.06	24981934.19	0.1617	0.0414
Mercury	63695-07-02 22:34 G	24985364.31	24985364.44	24985364.57	0.1616	0.0378
Mercury	63704-11-23 07:27 G	24988794.72	24988794.81	24988794.90	0.1616	0.1175
Venus	63711-02-10 11:31 G	24991064.81	24991064.98	24991065.15	0.1803	0.0389
Mercury	63711-06-29 07:55 G	24991203.70	24991203.83	24991203.95	0.1906	0.0989
Venus	63715-09-24 04:19 G	24992751.54	24992751.68	24992751.82	0.1716	0.0985
Mercury	63716-03-21 04:19 G	24992930.61	24992930.68	24992930.76	0.1618	0.1314
Earth	63720-09-25 03:51 G	24994579.46	24994579.66	24994579.87	0.1892	0.0316
Moon	63720-09-25 05:17 G	24994579.53	24994579.72	24994579.90	0.1893	0.0245 *
Mercury	63720-11-18 09:36 G	24994633.77	24994633.90	24994634.03	0.1908	0.0625
Mercury	63725-08-11 13:41 G	24996360.94	24996361.07	24996361.19	0.1617	0.0542
Mercury	63735-01-01 22:48 G	24999791.32	24999791.45	24999791.58	0.1616	0.0244
Mercury	63744-05-24 07:41 G	25003221.72	25003221.82	25003221.92	0.1616	0.1041
Mercury	63750-12-28 08:10 G	25005630.73	25005630.84	25005630.95	0.1906	0.1179
Mercury	63755-09-20 04:34 G	25007357.63	25007357.69	25007357.75	0.1618	0.1436
Mercury	63760-05-19 09:51 G	25009060.77	25009060.91	25009061.04	0.1907	0.0455

Mercury	63765-02-09 13:41 G	25010787.95	25010788.07	25010788.19	0.1617	0.0670
Mercury	63774-07-02 22:48 G	25014218.32	25014218.45	25014218.58	0.1616	0.0116
Venus	63776-12-07 18:00 G	25015107.11	25015107.25	25015107.40	0.1799	0.0955
Venus	63781-07-21 14:24 G	25016793.94	25016794.10	25016794.26	0.1719	0.0618
Mercury	63783-11-23 07:55 G	25017648.72	25017648.83	25017648.94	0.1616	0.0907
Mercury	63790-06-28 08:39 G	25020057.76	25020057.86	25020057.95	0.1906	0.1365
Mercury	63795-03-21 04:48 G	25021784.67	25021784.70	25021784.73	0.1618	0.1566
Mercury	63799-11-18 10:05 G	25023487.78	25023487.92	25023488.06	0.1907	0.0279
Mercury	63804-08-11 13:55 G	25025214.97	25025215.08	25025215.19	0.1617	0.0796
Mercury	63809-04-10 12:00 G	25026917.97	25026918.00	25026918.03	0.1908	0.1859
Mercury	63814-01-01 23:03 G	25028645.33	25028645.46	25028645.59	0.1616	0.0031
Mercury	63823-05-25 07:55 G	25032075.72	25032075.83	25032075.95	0.1616	0.0778
Mercury	63829-12-28 08:39 G	25034484.78	25034484.86	25034484.94	0.1906	0.1523
Mercury	63832-10-14 16:48 G	25035506.18	25035506.20	25035506.22	0.1615	0.1581
Moon	63838-03-27 04:48 G	25037495.52	25037495.70	25037495.87	0.1634	0.0591
Earth	63838-03-27 10:48 G	25037495.78	25037495.95	25037496.12	0.1634	0.0651 *
Mercury	63839-05-20 10:19 G	25037914.79	25037914.93	25037915.07	0.1908	0.0100
Venus	63842-10-06 00:15 G	25039149.42	25039149.51	25039149.60	0.1795	0.1523
Mercury	63844-02-10 14:10 G	25039641.98	25039642.09	25039642.19	0.1617	0.0926
Venus	63847-05-19 23:46 G	25040836.32	25040836.49	25040836.66	0.1722	0.0222
Mercury	63848-10-09 12:15 G	25041344.95	25041345.01	25041345.07	0.1908	0.1685
Mercury	63853-07-02 23:17 G	25043072.33	25043072.47	25043072.60	0.1616	0.0152
Mercury	63862-11-23 08:10 G	25046502.72	25046502.84	25046502.96	0.1615	0.0647
Mercury	63869-06-28 08:53 G	25048911.81	25048911.87	25048911.93	0.1906	0.1703
Mercury	63872-04-14 17:03 G	25049933.15	25049933.21	25049933.27	0.1615	0.1448
Mercury	63878-11-18 10:34 G	25052341.80	25052341.94	25052342.08	0.1907	0.0075
Mercury	63883-08-11 14:10 G	25054068.99	25054069.09	25054069.19	0.1617	0.1048
Mercury	63888-04-09 12:15 G	25055771.93	25055772.01	25055772.09	0.1908	0.1532
Mercury	63892-12-31 23:17 G	25057499.34	25057499.47	25057499.60	0.1616	0.0273
Mercury	63902-05-25 08:24 G	25060929.72	25060929.85	25060929.98	0.1616	0.0511

Mercury	63908-12-28 09:22 G	25063338.89	25063338.89	25063338.90	0.1906	0.1901
Mercury	63911-10-15 17:17 G	25064360.14	25064360.22	25064360.29	0.1615	0.1314
Venus	63913-03-17 09:07 G	25064878.70	25064878.88	25064879.05	0.1726	0.0188
Moon	63917-03-30 10:34 G	25066352.85	25066352.94	25066353.04	0.1632	0.1405
Earth	63917-03-30 11:46 G	25066352.95	25066352.99	25066353.04	0.1632	0.1571 *
Mercury	63918-05-20 10:48 G	25066768.81	25066768.95	25066769.09	0.1907	0.0245
Mercury	63923-02-10 14:24 G	25068496.01	25068496.10	25068496.19	0.1617	0.1175
Mercury	63927-10-10 12:29 G	25070198.93	25070199.02	25070199.12	0.1908	0.1352
Mercury	63932-07-02 23:31 G	25071926.35	25071926.48	25071926.61	0.1616	0.0401
Venus	63940-08-02 18:15 G	25074879.16	25074879.26	25074879.37	0.1803	0.1428
Mercury	63941-11-23 08:24 G	25075356.72	25075356.85	25075356.98	0.1616	0.0387
Mercury	63951-04-15 17:17 G	25078787.13	25078787.22	25078787.31	0.1615	0.1182
Mercury	63957-11-18 11:03 G	25081195.82	25081195.96	25081196.10	0.1908	0.0426
Mercury	63962-08-11 14:24 G	25082923.03	25082923.10	25082923.18	0.1617	0.1301
Mercury	63967-04-10 12:58 G	25084625.93	25084626.04	25084626.15	0.1908	0.1170
Mercury	63972-01-01 23:46 G	25086353.36	25086353.49	25086353.61	0.1616	0.0533
Venus	63979-01-12 18:29 G	25088921.11	25088921.27	25088921.44	0.1729	0.0586
Mercury	63981-05-24 08:39 G	25089783.73	25089783.86	25089783.99	0.1616	0.0254
Mercury	63990-10-14 17:31 G	25093214.13	25093214.23	25093214.33	0.1615	0.1050
Mercury	63997-05-19 11:17 G	25095622.83	25095622.97	25095623.10	0.1907	0.0592

65TH MILLENNIUM CE

This is a list of transits visible from Mars in the 65th millennium CE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Mercury	64002-02-09 14:39 G	25097350.05	25097350.11	25097350.17	0.1617	0.1425
Moon	64004-09-26 10:05 G	25098309.80	25098309.92	25098310.05	0.1887	0.1538
Venus	64006-05-31 00:00 G	25098921.35	25098921.50	25098921.66	0.1799	0.0827
Mercury	64006-10-09 12:58 G	25099052.92	25099053.04	25099053.15	0.1908	0.1022
Mercury	64011-07-02 23:46 G	25100780.37	25100780.49	25100780.61	0.1616	0.0657
Mercury	64020-11-22 08:53 G	25104210.74	25104210.87	25104211.00	0.1616	0.0122
Mercury	64030-04-14 17:46 G	25107641.13	25107641.24	25107641.35	0.1615	0.0917
Mercury	64036-11-17 11:31 G	25110049.85	25110049.98	25110050.11	0.1907	0.0766
Mercury	64041-08-10 14:39 G	25111777.08	25111777.11	25111777.15	0.1617	0.1549
Venus	64044-11-09 03:51 G	25112963.52	25112963.66	25112963.80	0.1732	0.0998
Mercury	64046-04-09 13:12 G	25113479.93	25113480.05	25113480.18	0.1908	0.0833
Mercury	64051-01-01 00:00 G	25115207.38	25115207.50	25115207.61	0.1616	0.0783
Mercury	64060-05-23 08:53 G	25118637.74	25118637.87	25118638.01	0.1616	0.0055
Mercury	64069-10-13 17:46 G	25122068.13	25122068.24	25122068.36	0.1615	0.0786
Venus	64072-03-27 06:43 G	25122963.61	25122963.78	25122963.95	0.1795	0.0275
Mercury	64076-05-18 11:46 G	25124476.87	25124476.99	25124477.11	0.1908	0.0950
Mercury	64079-03-06 02:39 G	25125498.59	25125498.61	25125498.63	0.1615	0.1586
Mercury	64085-10-08 13:27 G	25127906.93	25127907.06	25127907.19	0.1908	0.0662
Mercury	64090-07-02 00:00 G	25129634.40	25129634.50	25129634.61	0.1616	0.0913
Mercury	64099-11-22 09:07 G	25133064.75	25133064.88	25133065.01	0.1615	0.0135
Mercury	64109-04-14 18:00 G	25136495.13	25136495.25	25136495.37	0.1615	0.0655
Venus	64110-09-07 12:58 G	25137005.95	25137006.04	25137006.14	0.1736	0.1414
Mercury	64115-11-18 12:00 G	25138903.88	25138904.00	25138904.11	0.1907	0.1112
Mercury	64118-09-05 02:53 G	25139925.56	25139925.62	25139925.67	0.1615	0.1458
Earth	64122-03-30 15:51 G	25141227.98	25141228.16	25141228.35	0.1637	0.0156
Moon	64122-03-30 17:17 G	25141228.05	25141228.22	25141228.39	0.1637	0.0313 *
Mercury	64125-04-09 13:41 G	25142333.93	25142334.07	25142334.20	0.1908	0.0504
Mercury	64130-01-01 00:15 G	25144061.41	25144061.51	25144061.61	0.1616	0.1037
Venus	64138-01-23 13:27 G	25147005.89	25147006.06	25147006.23	0.1791	0.0276

Mercury	64139-05-24 09:22 G	25147491.76	25147491.89	25147492.02	0.1616	0.0267
Venus	64142-09-06 15:07 G	25148693.04	25148693.13	25148693.23	0.1725	0.1447
Mercury	64148-10-13 18:15 G	25150922.13	25150922.26	25150922.39	0.1615	0.0523
Mercury	64155-05-19 12:15 G	25153330.90	25153331.01	25153331.11	0.1907	0.1285
Mercury	64158-03-06 02:53 G	25154352.55	25154352.62	25154352.70	0.1615	0.1325
Mercury	64164-10-08 13:55 G	25156760.94	25156761.08	25156761.22	0.1908	0.0322
Mercury	64169-07-02 00:29 G	25158488.43	25158488.52	25158488.61	0.1616	0.1162
Mercury	64174-02-28 16:05 G	25160191.15	25160191.17	25160191.19	0.1908	0.1875
Mercury	64178-11-22 09:22 G	25161918.77	25161918.89	25161919.02	0.1616	0.0395
Mercury	64188-04-13 18:29 G	25165349.14	25165349.27	25165349.40	0.1615	0.0394
Mercury	64194-11-17 12:29 G	25167757.93	25167758.02	25167758.11	0.1908	0.1473
Mercury	64197-09-04 03:07 G	25168779.55	25168779.63	25168779.73	0.1615	0.1188
Venus	64203-11-21 20:10 G	25171048.19	25171048.34	25171048.50	0.1787	0.0815
Mercury	64204-04-09 14:10 G	25171187.95	25171188.09	25171188.23	0.1908	0.0146
Venus	64208-07-05 01:12 G	25172735.41	25172735.55	25172735.68	0.1729	0.1069
Mercury	64209-01-01 00:29 G	25172915.45	25172915.52	25172915.60	0.1616	0.1289
Mercury	64213-08-30 16:19 G	25174618.12	25174618.18	25174618.24	0.1908	0.1706
Mercury	64218-05-24 09:36 G	25176345.78	25176345.90	25176346.03	0.1616	0.0518
Mercury	64227-10-14 18:29 G	25179776.14	25179776.27	25179776.41	0.1615	0.0266
Mercury	64234-05-19 12:43 G	25182184.96	25182185.03	25182185.10	0.1907	0.1633
Mercury	64237-03-06 03:22 G	25183206.54	25183206.64	25183206.74	0.1615	0.1057
Mercury	64243-10-09 14:10 G	25185614.95	25185615.09	25185615.23	0.1908	0.0051
Mercury	64248-07-02 00:43 G	25187342.47	25187342.53	25187342.59	0.1616	0.1412
Mercury	64253-02-28 16:48 G	25189045.12	25189045.20	25189045.28	0.1908	0.1517
Mercury	64257-11-22 09:51 G	25190772.79	25190772.91	25190773.03	0.1616	0.0649
Mercury	64267-04-14 18:43 G	25194203.15	25194203.28	25194203.42	0.1615	0.0134
Venus	64269-09-18 03:07 G	25195090.51	25195090.63	25195090.74	0.1784	0.1349
Mercury	64273-11-17 12:58 G	25196612.00	25196612.04	25196612.08	0.1907	0.1808
Venus	64274-05-02 10:05 G	25196777.76	25196777.92	25196778.08	0.1732	0.0654
Mercury	64276-09-04 03:36 G	25197633.54	25197633.65	25197633.76	0.1615	0.0927

Mercury	64283-04-09 14:39 G	25200041.97	25200042.11	25200042.25	0.1908	0.0198
Mercury	64288-01-01 00:43 G	25201769.50	25201769.53	25201769.57	0.1616	0.1536
Mercury	64292-08-29 16:34 G	25203472.10	25203472.19	25203472.29	0.1908	0.1376
Mercury	64297-05-23 10:05 G	25205199.80	25205199.92	25205200.03	0.1616	0.0776
Mercury	64306-10-14 18:58 G	25208630.16	25208630.29	25208630.42	0.1615	0.0015
Mercury	64316-03-06 03:51 G	25212060.54	25212060.66	25212060.78	0.1615	0.0789
Mercury	64322-10-09 14:53 G	25214468.98	25214469.12	25214469.26	0.1908	0.0367
Mercury	64325-07-27 12:29 G	25215491.00	25215491.02	25215491.03	0.1615	0.1599
Earth	64327-03-31 19:41 G	25216103.21	25216103.32	25216103.44	0.1642	0.1287
Moon	64327-03-31 19:41 G	25216103.23	25216103.32	25216103.42	0.1642	0.1443 *
Mercury	64332-02-29 17:03 G	25217899.10	25217899.21	25217899.32	0.1908	0.1190
Mercury	64336-11-22 10:05 G	25219626.81	25219626.92	25219627.03	0.1615	0.0899
Venus	64340-02-28 19:12 G	25220820.13	25220820.30	25220820.47	0.1736	0.0241
Mercury	64346-04-14 19:12 G	25223057.16	25223057.30	25223057.43	0.1615	0.0134
Mercury	64355-09-05 03:51 G	25226487.54	25226487.66	25226487.79	0.1615	0.0663
Mercury	64362-04-09 15:07 G	25228895.99	25228896.13	25228896.26	0.1908	0.0535
Mercury	64365-01-25 12:43 G	25229917.97	25229918.03	25229918.08	0.1615	0.1460
Venus	64367-07-16 20:10 G	25230820.25	25230820.34	25230820.43	0.1791	0.1522
Moon	64367-10-02 12:43 G	25230897.89	25230898.03	25230898.17	0.1884	0.1478
Earth	64367-10-02 13:12 G	25230897.99	25230898.05	25230898.11	0.1884	0.1785 *
Mercury	64371-08-30 17:17 G	25232326.10	25232326.22	25232326.34	0.1908	0.1014
Mercury	64376-05-23 10:19 G	25234053.83	25234053.93	25234054.03	0.1616	0.1030
Mercury	64385-10-13 19:12 G	25237484.17	25237484.30	25237484.43	0.1615	0.0258
Mercury	64395-03-06 04:05 G	25240914.55	25240914.67	25240914.80	0.1615	0.0531
Mercury	64401-10-08 15:22 G	25243323.01	25243323.14	25243323.27	0.1908	0.0711
Mercury	64404-07-26 12:43 G	25244344.96	25244345.03	25244345.11	0.1615	0.1331
Venus	64405-12-26 04:19 G	25244862.51	25244862.68	25244862.86	0.1739	0.0178
Earth	64406-04-02 20:53 G	25244960.22	25244960.37	25244960.52	0.1640	0.0971
Moon	64406-04-03 03:07 G	25244960.51	25244960.63	25244960.76	0.1640	0.1234 *
Mercury	64411-02-28 17:17 G	25246753.10	25246753.22	25246753.35	0.1908	0.0862

Mercury	64415-11-22 10:19 G	25248480.84	25248480.93	25248481.03	0.1616	0.1154
Mercury	64425-04-13 19:27 G	25251911.18	25251911.31	25251911.44	0.1615	0.0387
Venus	64433-05-13 02:24 G	25254862.46	25254862.60	25254862.75	0.1787	0.0955
Mercury	64434-09-04 04:19 G	25255341.55	25255341.68	25255341.81	0.1615	0.0397
Mercury	64441-04-08 15:36 G	25257750.03	25257750.15	25257750.28	0.1908	0.0889
Mercury	64444-01-25 12:58 G	25258771.95	25258772.04	25258772.13	0.1615	0.1197
Mercury	64450-08-29 17:31 G	25261180.11	25261180.23	25261180.36	0.1908	0.0691
Mercury	64455-05-23 10:34 G	25262907.86	25262907.94	25262908.02	0.1616	0.1277
Mercury	64464-10-12 19:41 G	25266338.19	25266338.32	25266338.44	0.1615	0.0513
Venus	64471-10-23 13:12 G	25268904.89	25268905.05	25268905.21	0.1743	0.0603
Mercury	64474-03-05 04:34 G	25269768.56	25269768.69	25269768.82	0.1615	0.0268
Mercury	64480-10-07 15:51 G	25272177.04	25272177.16	25272177.27	0.1908	0.1047
Mercury	64483-07-26 13:12 G	25273198.95	25273199.05	25273199.15	0.1615	0.1061
Mercury	64490-02-27 18:00 G	25275607.12	25275607.25	25275607.39	0.1908	0.0499
Mercury	64494-11-21 10:48 G	25277334.89	25277334.95	25277335.01	0.1616	0.1407
Venus	64499-03-10 09:51 G	25278904.74	25278904.91	25278905.08	0.1784	0.0440
Mercury	64504-04-13 19:55 G	25280765.20	25280765.33	25280765.45	0.1615	0.0642
Mercury	64513-09-04 04:48 G	25284195.56	25284195.70	25284195.83	0.1615	0.0148
Mercury	64520-04-08 16:05 G	25286604.07	25286604.17	25286604.28	0.1908	0.1235
Mercury	64523-01-25 13:27 G	25287625.95	25287626.06	25287626.17	0.1615	0.0930
Mercury	64529-08-29 18:00 G	25290034.11	25290034.25	25290034.38	0.1908	0.0359
Mercury	64534-05-23 11:03 G	25291761.92	25291761.96	25291762.00	0.1616	0.1529
Venus	64537-08-20 22:19 G	25292947.29	25292947.43	25292947.57	0.1746	0.1027
Mercury	64539-01-19 20:39 G	25293464.33	25293464.36	25293464.39	0.1908	0.1853
Mercury	64543-10-13 19:55 G	25295192.22	25295192.33	25295192.45	0.1615	0.0770
Mercury	64553-03-05 05:03 G	25298622.57	25298622.71	25298622.84	0.1615	0.0045
Mercury	64559-10-08 16:19 G	25301031.09	25301031.18	25301031.27	0.1908	0.1401
Mercury	64562-07-26 13:41 G	25302052.95	25302053.07	25302053.18	0.1615	0.0799
Venus	64565-01-05 17:03 G	25302947.03	25302947.21	25302947.38	0.1780	0.0093
Mercury	64569-02-27 18:29 G	25304461.13	25304461.27	25304461.41	0.1908	0.0173

Mercury	64571-12-16 22:05 G	25305483.41	25305483.42	25305483.44	0.1616	0.1604
Mercury	64578-07-20 20:39 G	25307891.30	25307891.36	25307891.42	0.1908	0.1701
Mercury	64583-04-13 20:10 G	25309619.23	25309619.34	25309619.45	0.1615	0.0895
Mercury	64592-09-03 05:03 G	25313049.58	25313049.71	25313049.85	0.1615	0.0126
Mercury	64599-04-08 16:34 G	25315458.12	25315458.19	25315458.27	0.1908	0.1574
Mercury	64602-01-25 13:55 G	25316479.95	25316480.08	25316480.20	0.1615	0.0663
Venus	64603-06-19 07:12 G	25316989.71	25316989.80	25316989.90	0.1750	0.1462
Mercury	64608-08-29 18:43 G	25318888.14	25318888.28	25318888.42	0.1908	0.0033
Moon	64611-04-03 18:58 G	25319835.13	25319835.29	25319835.45	0.1646	0.0717
Earth	64611-04-04 00:29 G	25319835.35	25319835.52	25319835.70	0.1646	0.0490 *
Mercury	64611-06-17 22:19 G	25319910.38	25319910.43	25319910.49	0.1615	0.1469
Mercury	64618-01-19 20:53 G	25322318.29	25322318.37	25322318.46	0.1908	0.1528
Mercury	64622-10-13 20:24 G	25324046.25	25324046.35	25324046.45	0.1615	0.1022
Venus	64630-11-04 00:15 G	25326989.34	25326989.51	25326989.67	0.1776	0.0588
Mercury	64632-03-05 05:17 G	25327476.59	25327476.72	25327476.85	0.1615	0.0251
Venus	64635-06-18 11:17 G	25328676.89	25328676.97	25328677.05	0.1739	0.1513
Mercury	64638-10-08 16:48 G	25329885.15	25329885.20	25329885.26	0.1908	0.1747
Mercury	64641-07-26 13:55 G	25330906.96	25330907.08	25330907.21	0.1615	0.0537
Mercury	64648-02-28 18:43 G	25333315.14	25333315.28	25333315.42	0.1908	0.0159
Mercury	64650-12-16 22:34 G	25334337.37	25334337.44	25334337.52	0.1616	0.1333
Moon	64651-10-03 09:36 G	25334627.73	25334627.90	25334628.08	0.1877	0.0754
Earth	64651-10-03 15:22 G	25334627.94	25334628.14	25334628.34	0.1878	0.0188 *
Mercury	64657-07-20 21:22 G	25336745.29	25336745.39	25336745.48	0.1908	0.1353
Mercury	64662-04-13 20:39 G	25338473.27	25338473.36	25338473.45	0.1615	0.1151
Mercury	64671-09-04 05:31 G	25341903.60	25341903.73	25341903.86	0.1615	0.0382
Mercury	64681-01-24 14:10 G	25345333.96	25345334.09	25345334.22	0.1615	0.0404
Mercury	64687-08-29 18:58 G	25347742.16	25347742.29	25347742.43	0.1908	0.0340
Mercury	64690-06-16 22:48 G	25348764.36	25348764.45	25348764.54	0.1616	0.1200
Venus	64696-08-31 07:41 G	25351031.68	25351031.82	25351031.95	0.1772	0.1090
Mercury	64697-01-18 21:22 G	25351172.29	25351172.39	25351172.50	0.1908	0.1190

Venus	64701-04-15 19:55 G	25352719.19	25352719.33	25352719.46	0.1743	0.1082
Mercury	64701-10-13 20:39 G	25352900.28	25352900.36	25352900.44	0.1615	0.1274
Mercury	64711-03-06 05:46 G	25356330.61	25356330.74	25356330.86	0.1615	0.0511
Mercury	64720-07-26 14:24 G	25359760.97	25359761.10	25359761.24	0.1615	0.0270
Mercury	64727-02-28 19:27 G	25362169.18	25362169.31	25362169.45	0.1908	0.0525
Mercury	64729-12-16 23:03 G	25363191.36	25363191.46	25363191.56	0.1615	0.1065
Mercury	64736-07-20 21:36 G	25365599.28	25365599.40	25365599.52	0.1908	0.1029
Mercury	64741-04-13 20:53 G	25367327.31	25367327.37	25367327.44	0.1615	0.1399
Mercury	64750-09-04 05:46 G	25370757.62	25370757.74	25370757.87	0.1615	0.0637
Mercury	64760-01-25 14:39 G	25374187.98	25374188.11	25374188.24	0.1615	0.0140
Venus	64762-06-29 15:07 G	25375074.06	25375074.13	25375074.21	0.1769	0.1579
Mercury	64766-08-29 19:27 G	25376596.18	25376596.31	25376596.44	0.1908	0.0665
Venus	64767-02-11 04:48 G	25376761.54	25376761.70	25376761.86	0.1746	0.0658
Mercury	64769-06-16 23:17 G	25377618.36	25377618.47	25377618.58	0.1616	0.0932
Mercury	64776-01-19 22:05 G	25380026.30	25380026.42	25380026.54	0.1908	0.0841
Mercury	64780-10-12 21:07 G	25381754.34	25381754.38	25381754.42	0.1615	0.1526
Mercury	64790-03-05 06:00 G	25385184.64	25385184.75	25385184.87	0.1615	0.0769
Venus	64794-06-29 00:00 G	25386761.45	25386761.50	25386761.55	0.1780	0.1705
Mercury	64799-07-26 14:53 G	25388614.98	25388615.12	25388615.25	0.1615	0.0035
Mercury	64806-02-27 19:55 G	25391023.20	25391023.33	25391023.45	0.1908	0.0855
Mercury	64808-12-15 23:31 G	25392045.36	25392045.48	25392045.60	0.1616	0.0800
Mercury	64815-07-20 22:05 G	25394453.29	25394453.42	25394453.55	0.1908	0.0693
Mercury	64818-05-08 07:55 G	25395475.82	25395475.83	25395475.84	0.1616	0.1605
Mercury	64829-09-03 06:15 G	25399611.65	25399611.76	25399611.87	0.1615	0.0892
Venus	64832-12-08 13:55 G	25400803.91	25400804.08	25400804.25	0.1750	0.0233
Mercury	64839-01-24 15:07 G	25403041.99	25403042.13	25403042.26	0.1615	0.0124
Mercury	64845-08-28 20:10 G	25405450.22	25405450.34	25405450.46	0.1908	0.1028
Mercury	64848-06-15 23:46 G	25406472.37	25406472.49	25406472.61	0.1616	0.0668
Mercury	64855-01-18 22:19 G	25408880.30	25408880.43	25408880.56	0.1908	0.0518
Mercury	64857-11-06 08:10 G	25409902.79	25409902.84	25409902.89	0.1616	0.1470

Venus	64860-04-25 06:43 G	25410803.65	25410803.78	25410803.91	0.1776	0.1172
Mercury	64869-03-04 06:29 G	25414038.66	25414038.77	25414038.87	0.1615	0.1019
Mercury	64878-07-25 15:07 G	25417469.00	25417469.13	25417469.27	0.1615	0.0253
Mercury	64885-02-26 20:10 G	25419877.23	25419877.34	25419877.45	0.1908	0.1182
Mercury	64887-12-16 00:00 G	25420899.37	25420899.50	25420899.63	0.1616	0.0534
Mercury	64894-07-19 22:48 G	25423307.31	25423307.45	25423307.58	0.1908	0.0344
Earth	64895-04-06 05:03 G	25423567.53	25423567.71	25423567.90	0.1649	0.0322
Moon	64895-04-06 08:53 G	25423567.69	25423567.87	25423568.04	0.1649	0.0286 *
Mercury	64897-05-07 08:24 G	25424329.78	25424329.85	25424329.93	0.1616	0.1332
Venus	64898-10-05 22:19 G	25424846.26	25424846.43	25424846.60	0.1753	0.0214
Mercury	64903-12-11 01:12 G	25426737.52	25426737.55	25426737.59	0.1907	0.1838
Mercury	64908-09-03 06:43 G	25428465.68	25428465.78	25428465.87	0.1615	0.1147
Mercury	64918-01-24 15:22 G	25431896.01	25431896.14	25431896.27	0.1615	0.0380
Mercury	64924-08-28 20:39 G	25434304.26	25434304.36	25434304.45	0.1908	0.1362
Venus	64926-02-21 14:39 G	25434845.95	25434846.11	25434846.27	0.1772	0.0690
Mercury	64927-06-17 00:15 G	25435326.38	25435326.51	25435326.64	0.1616	0.0406
Mercury	64934-01-18 22:48 G	25437734.31	25437734.45	25437734.59	0.1908	0.0183
Moon	64935-10-05 05:03 G	25438358.68	25438358.71	25438358.75	0.1871	0.1830
Mercury	64936-11-06 08:39 G	25438756.77	25438756.86	25438756.95	0.1616	0.1202
Mercury	64943-06-11 01:27 G	25441164.49	25441164.56	25441164.62	0.1907	0.1689
Mercury	64948-03-04 06:43 G	25442892.70	25442892.78	25442892.86	0.1615	0.1272
Mercury	64957-07-25 15:36 G	25446323.03	25446323.15	25446323.28	0.1615	0.0512
Mercury	64964-02-27 20:53 G	25448731.29	25448731.37	25448731.45	0.1908	0.1547
Venus	64964-08-03 07:12 G	25448888.64	25448888.80	25448888.96	0.1757	0.0651
Mercury	64966-12-16 00:15 G	25449753.38	25449753.51	25449753.65	0.1615	0.0279
Mercury	64973-07-19 23:03 G	25452161.32	25452161.46	25452161.60	0.1908	0.0031
Mercury	64976-05-07 08:53 G	25453183.77	25453183.87	25453183.97	0.1616	0.1069
Mercury	64982-12-10 01:41 G	25455591.49	25455591.57	25455591.65	0.1907	0.1507
Mercury	64987-09-03 06:58 G	25457319.73	25457319.79	25457319.85	0.1615	0.1396
Venus	64991-12-19 22:05 G	25458888.25	25458888.42	25458888.59	0.1769	0.0195

Mercury 64997-01-23 15:51 G 25460750.04 25460750.16 25460750.28 0.1615 0.0634

66TH MILLENNIUM CE

This is a list of transits visible from Mars in the 66th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	65003-08-29 20:53	G	25463158.31	25463158.37	25463158.43	0.1908	0.1686	
Mercury	65006-06-17 00:29	G	25464180.39	25464180.52	25464180.66	0.1616	0.0149	
Mercury	65013-01-18 23:31	G	25466588.34	25466588.48	25466588.62	0.1908	0.0172	
Mercury	65015-11-07 09:07	G	25467610.77	25467610.88	25467610.99	0.1616	0.0931	
Mercury	65022-06-11 01:55	G	25470018.48	25470018.58	25470018.67	0.1907	0.1345	
Mercury	65027-03-05 07:12	G	25471746.76	25471746.80	25471746.84	0.1615	0.1522	
Venus	65030-06-01 15:36	G	25472931.02	25472931.15	25472931.28	0.1761	0.1105	
Mercury	65036-07-25 16:05	G	25475177.05	25475177.17	25475177.29	0.1615	0.0760	
Mercury	65043-02-27 21:22	G	25477585.37	25477585.39	25477585.41	0.1908	0.1879	
Mercury	65045-12-16 00:43	G	25478607.40	25478607.53	25478607.67	0.1616	0.0025	
Mercury	65052-07-19 23:31	G	25481015.34	25481015.48	25481015.61	0.1908	0.0319	
Mercury	65055-05-08 09:22	G	25482037.77	25482037.89	25482038.01	0.1616	0.0802	
Venus	65057-10-17 06:00	G	25482930.57	25482930.75	25482930.92	0.1765	0.0286	
Mercury	65061-12-10 01:55	G	25484445.48	25484445.58	25484445.69	0.1907	0.1189	
Mercury	65064-09-27 17:46	G	25485468.23	25485468.24	25485468.25	0.1617	0.1605	
Mercury	65076-01-24 16:19	G	25489604.07	25489604.18	25489604.29	0.1615	0.0893	
Mercury	65085-06-16 00:58	G	25493034.41	25493034.54	25493034.68	0.1616	0.0119	
Mercury	65092-01-18 23:46	G	25495442.36	25495442.49	25495442.63	0.1908	0.0491	

Mercury	65094-11-06 09:36 G	25496464.77	25496464.90	25496465.02	0.1616	0.0673
Venus	65096-03-29 00:00 G	25496973.43	25496973.50	25496973.58	0.1764	0.1564
Moon	65100-04-07 02:10 G	25498442.46	25498442.59	25498442.72	0.1656	0.1245
Earth	65100-04-07 06:15 G	25498442.64	25498442.76	25498442.88	0.1656	0.1247 *
Mercury	65101-06-11 02:10 G	25498872.48	25498872.59	25498872.71	0.1907	0.1019
Mercury	65104-03-29 18:00 G	25499895.19	25499895.25	25499895.30	0.1617	0.1474
Mercury	65115-07-26 16:19 G	25504031.08	25504031.18	25504031.29	0.1615	0.1016
Venus	65123-08-15 13:41 G	25506972.91	25506973.07	25506973.22	0.1761	0.0763
Mercury	65124-12-16 01:12 G	25507461.42	25507461.55	25507461.68	0.1616	0.0248
Venus	65128-03-29 05:03 G	25508660.62	25508660.71	25508660.80	0.1753	0.1492
Mercury	65131-07-21 00:00 G	25509869.38	25509869.50	25509869.63	0.1908	0.0671
Mercury	65134-05-08 09:51 G	25510891.78	25510891.91	25510892.04	0.1616	0.0537
Mercury	65140-12-10 02:39 G	25513299.48	25513299.61	25513299.73	0.1907	0.0851
Mercury	65143-09-28 18:15 G	25514322.18	25514322.26	25514322.33	0.1617	0.1341
Mercury	65155-01-24 16:34 G	25518458.10	25518458.19	25518458.29	0.1615	0.1140
Mercury	65164-06-16 01:27 G	25521888.43	25521888.56	25521888.69	0.1616	0.0375
Mercury	65171-01-19 00:15 G	25524296.38	25524296.51	25524296.63	0.1908	0.0821
Mercury	65173-11-06 09:51 G	25525318.78	25525318.91	25525319.05	0.1616	0.0411
Earth	65179-04-10 09:22 G	25527299.76	25527299.89	25527300.03	0.1653	0.1123
Moon	65179-04-10 13:55 G	25527299.94	25527300.08	25527300.22	0.1653	0.1124 *
Mercury	65180-06-10 02:39 G	25527726.48	25527726.61	25527726.74	0.1907	0.0694
Mercury	65183-03-29 18:29 G	25528749.18	25528749.27	25528749.36	0.1617	0.1202
Venus	65189-06-11 21:36 G	25531015.27	25531015.40	25531015.52	0.1758	0.1234
Venus	65194-01-24 13:41 G	25532702.93	25532703.07	25532703.21	0.1757	0.1055
Mercury	65194-07-25 16:48 G	25532885.12	25532885.20	25532885.28	0.1615	0.1269
Mercury	65203-12-16 01:41 G	25536315.44	25536315.57	25536315.69	0.1616	0.0504
Mercury	65210-07-20 00:29 G	25538723.40	25538723.52	25538723.64	0.1908	0.0986
Mercury	65213-05-07 10:05 G	25539745.79	25539745.92	25539746.06	0.1616	0.0281
Mercury	65219-12-10 02:53 G	25542153.49	25542153.62	25542153.76	0.1907	0.0521
Mercury	65222-09-27 18:43 G	25543176.18	25543176.28	25543176.38	0.1617	0.1073

Mercury	65234-01-23 17:03 G	25547312.14	25547312.21	25547312.27	0.1615	0.1390
Mercury	65243-06-16 01:41 G	25550742.45	25550742.57	25550742.70	0.1616	0.0634
Mercury	65250-01-18 00:58 G	25553150.43	25553150.54	25553150.65	0.1908	0.1176
Mercury	65252-11-05 10:19 G	25554172.80	25554172.93	25554173.07	0.1616	0.0155
Venus	65255-04-09 05:03 G	25555057.67	25555057.71	25555057.75	0.1754	0.1698
Mercury	65259-06-10 03:07 G	25556580.50	25556580.63	25556580.76	0.1907	0.0359
Venus	65259-11-21 22:19 G	25556745.26	25556745.43	25556745.59	0.1761	0.0608
Mercury	65262-03-28 18:43 G	25557603.18	25557603.28	25557603.40	0.1617	0.0943
Mercury	65268-10-30 06:00 G	25560010.71	25560010.75	25560010.78	0.1906	0.1824
Mercury	65273-07-24 17:03 G	25561739.17	25561739.21	25561739.26	0.1615	0.1514
Mercury	65282-12-15 01:55 G	25565169.46	25565169.58	25565169.70	0.1616	0.0758
Venus	65287-04-08 12:15 G	25566744.91	25566745.01	25566745.10	0.1765	0.1446
Mercury	65289-07-19 00:43 G	25567577.43	25567577.53	25567577.63	0.1908	0.1316
Mercury	65292-05-06 10:34 G	25568599.81	25568599.94	25568600.08	0.1616	0.0022
Mercury	65298-12-09 03:22 G	25571007.50	25571007.64	25571007.78	0.1907	0.0198
Mercury	65301-09-27 19:12 G	25572030.18	25572030.30	25572030.41	0.1617	0.0806
Mercury	65308-05-01 06:15 G	25574437.70	25574437.76	25574437.83	0.1906	0.1649
Mercury	65311-02-18 03:22 G	25575460.64	25575460.64	25575460.64	0.1618	0.1614
Mercury	65322-06-16 02:10 G	25579596.48	25579596.59	25579596.70	0.1616	0.0882
Venus	65325-09-19 06:15 G	25580787.59	25580787.76	25580787.93	0.1764	0.0140
Mercury	65329-01-18 01:12 G	25582004.46	25582004.55	25582004.63	0.1908	0.1490
Mercury	65331-11-06 10:48 G	25583026.81	25583026.95	25583027.08	0.1616	0.0110
Mercury	65338-06-10 03:36 G	25585434.51	25585434.65	25585434.78	0.1907	0.0046
Mercury	65341-03-28 19:12 G	25586457.18	25586457.30	25586457.43	0.1617	0.0678
Mercury	65347-10-31 06:15 G	25588864.68	25588864.76	25588864.84	0.1906	0.1513
Mercury	65350-08-19 03:36 G	25589887.60	25589887.65	25589887.70	0.1618	0.1481
Venus	65353-02-03 20:24 G	25590787.21	25590787.35	25590787.50	0.1761	0.0986
Mercury	65361-12-15 02:24 G	25594023.49	25594023.60	25594023.70	0.1616	0.1009
Mercury	65368-07-19 01:27 G	25596431.50	25596431.56	25596431.63	0.1908	0.1666
Mercury	65371-05-07 11:03 G	25597453.83	25597453.96	25597454.09	0.1616	0.0241

Mercury	65377-12-09 03:51 G	25599861.52	25599861.66	25599861.79	0.1907	0.0141
Mercury	65380-09-26 19:27 G	25600884.19	25600884.31	25600884.44	0.1617	0.0547
Moon	65384-04-09 05:31 G	25602174.56	25602174.73	25602174.90	0.1660	0.0486
Earth	65384-04-09 09:51 G	25602174.73	25602174.91	25602175.09	0.1660	0.0469 *
Mercury	65387-05-01 06:29 G	25603291.68	25603291.77	25603291.87	0.1906	0.1338
Mercury	65390-02-17 03:51 G	25604314.58	25604314.66	25604314.73	0.1618	0.1348
Venus	65391-07-17 14:53 G	25604829.95	25604830.12	25604830.29	0.1768	0.0319
Mercury	65401-06-16 02:39 G	25608450.51	25608450.61	25608450.70	0.1616	0.1134
Mercury	65408-01-19 01:27 G	25610858.53	25610858.56	25610858.60	0.1908	0.1816
Mercury	65410-11-06 11:17 G	25611880.84	25611880.97	25611881.10	0.1616	0.0369
Mercury	65417-06-10 03:51 G	25614288.53	25614288.66	25614288.80	0.1907	0.0301
Venus	65418-12-03 04:05 G	25614829.51	25614829.67	25614829.84	0.1758	0.0509
Mercury	65420-03-28 19:41 G	25615311.19	25615311.32	25615311.46	0.1617	0.0414
Mercury	65426-10-31 06:43 G	25617718.68	25617718.78	25617718.89	0.1906	0.1173
Mercury	65429-08-19 04:05 G	25618741.58	25618741.67	25618741.76	0.1618	0.1217
Mercury	65440-12-15 02:39 G	25622877.53	25622877.61	25622877.70	0.1616	0.1257
Mercury	65450-05-07 11:17 G	25626307.85	25626307.97	25626308.10	0.1616	0.0497
Mercury	65456-12-09 04:05 G	25628715.54	25628715.67	25628715.81	0.1907	0.0463
Venus	65457-05-14 22:34 G	25628872.29	25628872.44	25628872.60	0.1772	0.0798
Mercury	65459-09-27 19:55 G	25629738.20	25629738.33	25629738.46	0.1617	0.0286
Mercury	65466-05-01 06:43 G	25632145.67	25632145.78	25632145.90	0.1906	0.1031
Mercury	65469-02-17 04:19 G	25633168.58	25633168.68	25633168.78	0.1618	0.1082
Mercury	65480-06-15 02:53 G	25637304.56	25637304.62	25637304.69	0.1616	0.1384
Venus	65484-09-29 12:15 G	25638871.84	25638872.01	25638872.19	0.1754	0.0066
Mercury	65489-11-05 11:31 G	25640734.86	25640734.98	25640735.11	0.1616	0.0625
Mercury	65496-06-09 04:19 G	25643142.55	25643142.68	25643142.81	0.1907	0.0618
Mercury	65499-03-28 20:10 G	25644165.20	25644165.34	25644165.47	0.1617	0.0158
Mercury	65505-10-31 07:12 G	25646572.67	25646572.80	25646572.92	0.1906	0.0862
Mercury	65508-08-19 04:34 G	25647595.58	25647595.69	25647595.80	0.1618	0.0953
Mercury	65519-12-16 03:07 G	25651731.58	25651731.63	25651731.67	0.1616	0.1504

Venus	65523-03-13 06:29 G	25652914.66	25652914.77	25652914.89	0.1775	0.1285
Mercury	65529-05-07 11:46 G	25655161.87	25655161.99	25655162.11	0.1616	0.0747
Mercury	65535-12-10 04:34 G	25657569.57	25657569.69	25657569.82	0.1907	0.0787
Mercury	65538-09-27 20:24 G	25658592.21	25658592.35	25658592.49	0.1617	0.0025
Mercury	65545-05-01 07:27 G	25660999.68	25660999.81	25660999.93	0.1906	0.0690
Mercury	65548-02-18 04:48 G	25662022.58	25662022.70	25662022.81	0.1618	0.0820
Venus	65550-07-28 20:10 G	25662914.17	25662914.34	25662914.51	0.1750	0.0410
Mercury	65568-11-05 12:00 G	25669588.89	25669589.00	25669589.11	0.1616	0.0872
Mercury	65575-06-10 04:48 G	25671996.58	25671996.70	25671996.82	0.1907	0.0944
Mercury	65578-03-28 20:39 G	25673019.22	25673019.36	25673019.49	0.1617	0.0105
Moon	65582-10-11 07:41 G	25674676.63	25674676.82	25674677.02	0.1860	0.0346
Earth	65582-10-11 17:03 G	25674677.01	25674677.21	25674677.41	0.1861	0.0304 *
Mercury	65584-10-30 07:12 G	25675426.67	25675426.80	25675426.93	0.1906	0.0557
Mercury	65587-08-19 04:48 G	25676449.58	25676449.70	25676449.83	0.1618	0.0690
Mercury	65597-01-08 13:12 G	25679880.00	25679880.05	25679880.10	0.1619	0.1493
Mercury	65608-05-06 12:15 G	25684015.91	25684016.01	25684016.11	0.1616	0.0999
Mercury	65614-12-09 05:03 G	25686423.60	25686423.71	25686423.82	0.1907	0.1107
Venus	65616-05-25 04:19 G	25686956.53	25686956.68	25686956.84	0.1747	0.0861
Mercury	65617-09-26 20:39 G	25687446.23	25687446.36	25687446.50	0.1617	0.0232
Venus	65621-01-06 20:53 G	25688644.27	25688644.37	25688644.48	0.1768	0.1392
Mercury	65624-04-30 07:41 G	25689853.69	25689853.82	25689853.95	0.1906	0.0377
Mercury	65627-02-17 05:03 G	25690876.59	25690876.71	25690876.84	0.1618	0.0560
Mercury	65633-09-20 10:34 G	25693283.91	25693283.94	25693283.98	0.1904	0.1818
Mercury	65636-07-09 13:12 G	25694306.98	25694307.05	25694307.13	0.1619	0.1365
Mercury	65647-11-05 12:29 G	25698442.92	25698443.02	25698443.11	0.1616	0.1123
Mercury	65654-06-09 05:17 G	25700850.62	25700850.72	25700850.82	0.1907	0.1272
Mercury	65657-03-27 21:07 G	25701873.24	25701873.38	25701873.51	0.1617	0.0363
Mercury	65663-10-30 07:55 G	25704280.69	25704280.83	25704280.96	0.1906	0.0218
Mercury	65666-08-18 05:17 G	25705303.59	25705303.72	25705303.85	0.1618	0.0431
Earth	65668-04-12 12:00 G	25705906.82	25705907.00	25705907.19	0.1665	0.0264

Moon	65668-04-12 17:46 G	25705907.06	25705907.24	25705907.41	0.1665	0.0424 *
Mercury	65673-03-21 10:48 G	25707710.89	25707710.95	25707711.02	0.1904	0.1654
Mercury	65676-01-08 13:27 G	25708733.98	25708734.06	25708734.15	0.1619	0.1232
Venus	65682-03-22 12:29 G	25710998.90	25710999.02	25710999.13	0.1743	0.1304
Venus	65686-11-04 05:03 G	25712686.56	25712686.71	25712686.85	0.1772	0.0921
Mercury	65687-05-06 12:29 G	25712869.94	25712870.02	25712870.11	0.1616	0.1245
Mercury	65693-12-08 05:17 G	25715277.63	25715277.72	25715277.81	0.1907	0.1429
Mercury	65696-09-25 21:07 G	25716300.25	25716300.38	25716300.51	0.1617	0.0481
Mercury	65703-05-01 07:55 G	25718707.69	25718707.83	25718707.97	0.1906	0.0074
Mercury	65706-02-17 05:31 G	25719730.60	25719730.73	25719730.87	0.1618	0.0299
Mercury	65712-09-20 11:03 G	25722137.88	25722137.96	25722138.05	0.1905	0.1489
Venus	65714-03-22 18:15 G	25722686.24	25722686.26	25722686.27	0.1754	0.1743
Mercury	65715-07-10 13:41 G	25723160.98	25723161.07	25723161.18	0.1619	0.1098
Mercury	65726-11-05 12:43 G	25727296.96	25727297.03	25727297.10	0.1616	0.1369
Mercury	65733-06-09 05:31 G	25729704.66	25729704.73	25729704.81	0.1907	0.1588
Mercury	65736-03-27 21:22 G	25730727.26	25730727.39	25730727.51	0.1617	0.0607
Mercury	65742-10-30 08:10 G	25733134.70	25733134.84	25733134.98	0.1906	0.0098
Mercury	65745-08-18 05:46 G	25734157.60	25734157.74	25734157.87	0.1618	0.0172
Venus	65748-01-18 20:53 G	25735041.37	25735041.37	25735041.38	0.1740	0.1736
Mercury	65752-03-21 11:17 G	25736564.87	25736564.97	25736565.06	0.1904	0.1345
Venus	65752-09-01 12:29 G	25736728.85	25736729.02	25736729.19	0.1775	0.0430
Mercury	65755-01-08 13:55 G	25737587.97	25737588.08	25737588.19	0.1619	0.0969
Mercury	65766-05-06 12:58 G	25741723.99	25741724.04	25741724.09	0.1616	0.1491
Mercury	65772-12-08 05:46 G	25744131.69	25744131.74	25744131.80	0.1907	0.1761
Mercury	65775-09-26 21:36 G	25745154.28	25745154.40	25745154.52	0.1617	0.0737
Venus	65780-01-18 02:53 G	25746728.50	25746728.62	25746728.73	0.1751	0.1300
Mercury	65782-04-30 08:24 G	25747561.72	25747561.85	25747561.99	0.1906	0.0266
Mercury	65785-02-16 06:00 G	25748584.61	25748584.75	25748584.88	0.1618	0.0047
Mercury	65791-09-20 11:17 G	25750991.87	25750991.97	25750992.08	0.1904	0.1191
Mercury	65794-07-09 14:10 G	25752014.98	25752015.09	25752015.21	0.1619	0.0838

Mercury	65805-11-05 13:12 G	25756151.04	25756151.05	25756151.05	0.1616	0.1614
Mercury	65815-03-28 21:51 G	25759581.29	25759581.41	25759581.52	0.1617	0.0859
Venus	65818-06-30 20:39 G	25760771.19	25760771.36	25760771.53	0.1779	0.0053
Mercury	65821-10-30 08:24 G	25761988.72	25761988.85	25761988.98	0.1906	0.0399
Mercury	65824-08-18 06:15 G	25763011.62	25763011.76	25763011.89	0.1618	0.0091
Mercury	65831-03-22 11:46 G	25765418.87	25765418.99	25765419.10	0.1904	0.1013
Mercury	65834-01-08 14:24 G	25766441.98	25766442.10	25766442.23	0.1619	0.0704
Mercury	65843-05-31 22:34 G	25769872.39	25769872.44	25769872.48	0.1620	0.1515
Venus	65845-11-15 10:48 G	25770770.79	25770770.95	25770771.10	0.1747	0.0846
Mercury	65854-09-26 21:51 G	25774008.31	25774008.41	25774008.52	0.1617	0.0981
Mercury	65861-04-30 08:53 G	25776415.74	25776415.87	25776416.00	0.1906	0.0579
Mercury	65864-02-17 06:29 G	25777438.63	25777438.77	25777438.90	0.1618	0.0218
Earth	65866-10-13 00:43 G	25778407.37	25778407.53	25778407.69	0.1853	0.1160
Moon	65866-10-13 04:48 G	25778407.57	25778407.70	25778407.83	0.1853	0.1337 *
Mercury	65870-09-20 11:31 G	25779845.86	25779845.98	25779846.10	0.1904	0.0882
Earth	65873-04-13 08:53 G	25780781.80	25780781.87	25780781.94	0.1673	0.1549
Mercury	65873-07-09 14:39 G	25780868.98	25780869.11	25780869.24	0.1619	0.0576
Mercury	65882-11-29 22:48 G	25784299.38	25784299.45	25784299.52	0.1620	0.1378
Venus	65884-04-27 03:51 G	25784813.50	25784813.66	25784813.83	0.1783	0.0557
Mercury	65894-03-27 22:05 G	25788435.33	25788435.42	25788435.52	0.1617	0.1112
Mercury	65900-10-30 08:53 G	25790842.75	25790842.87	25790843.00	0.1906	0.0736
Mercury	65903-08-19 06:29 G	25791865.64	25791865.77	25791865.91	0.1618	0.0342
Mercury	65910-03-22 12:00 G	25794272.87	25794273.00	25794273.12	0.1904	0.0716
Venus	65911-09-13 19:27 G	25794813.14	25794813.31	25794813.48	0.1743	0.0412
Mercury	65913-01-08 14:53 G	25795295.99	25795296.12	25795296.25	0.1619	0.0446
Mercury	65922-05-31 23:03 G	25798726.37	25798726.46	25798726.54	0.1620	0.1251
Mercury	65933-09-26 22:19 G	25802862.34	25802862.43	25802862.52	0.1617	0.1230
Mercury	65940-04-30 09:07 G	25805269.75	25805269.88	25805270.00	0.1906	0.0883
Mercury	65943-02-17 06:43 G	25806292.65	25806292.78	25806292.91	0.1618	0.0471
Mercury	65949-09-20 12:15 G	25808699.88	25808700.01	25808700.14	0.1904	0.0552

Venus	65950-02-23 11:31 G	25808855.84	25808855.98	25808856.12	0.1786	0.1064
Moon	65952-04-16 13:27 G	25809638.89	25809639.06	25809639.23	0.1669	0.0901
Earth	65952-04-16 13:27 G	25809638.90	25809639.06	25809639.21	0.1669	0.0958 *
Mercury	65952-07-09 15:07 G	25809723.00	25809723.13	25809723.26	0.1619	0.0316
Mercury	65961-11-29 23:17 G	25813153.37	25813153.47	25813153.56	0.1620	0.1119
Mercury	65973-03-27 22:34 G	25817289.37	25817289.44	25817289.51	0.1617	0.1353
Venus	65977-07-11 03:36 G	25818855.48	25818855.65	25818855.83	0.1740	0.0032
Mercury	65979-10-30 09:22 G	25819696.77	25819696.89	25819697.00	0.1906	0.1049
Mercury	65982-08-18 06:58 G	25820719.66	25820719.79	25820719.92	0.1618	0.0590
Mercury	65989-03-21 12:00 G	25823126.87	25823127.00	25823127.14	0.1904	0.0415
Mercury	65992-01-08 15:22 G	25824150.00	25824150.14	25824150.27	0.1619	0.0189
Mercury	65998-08-11 15:36 G	25826557.11	25826557.15	25826557.19	0.1903	0.1802

67TH MILLENNIUM CE

This is a list of transits visible from Mars in the 67th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	66001-05-30 23:31 G		25827580.37	25827580.48	25827580.59	0.1620	0.0982	
Mercury	66012-09-25 22:48 G		25831716.40	25831716.45	25831716.50	0.1617	0.1479	
Venus	66015-12-21 18:58 G		25832898.21	25832898.29	25832898.36	0.1790	0.1581	
Mercury	66019-04-30 09:36 G		25834123.79	25834123.90	25834124.00	0.1906	0.1213	
Mercury	66022-02-16 07:12 G		25835146.68	25835146.80	25835146.92	0.1618	0.0716	
Mercury	66028-09-19 12:15 G		25837553.88	25837554.01	25837554.15	0.1904	0.0258	
Mercury	66031-07-09 15:36 G		25838577.01	25838577.15	25838577.28	0.1619	0.0069	

Mercury	66038-02-09 15:51 G	25840984.09	25840984.16	25840984.22	0.1902	0.1640
Mercury	66040-11-28 23:46 G	25842007.37	25842007.49	25842007.60	0.1620	0.0857
Venus	66043-05-08 12:00 G	25842897.83	25842898.00	25842898.17	0.1736	0.0459
Venus	66047-12-21 02:39 G	25844585.56	25844585.61	25844585.67	0.1779	0.1675
Mercury	66052-03-26 22:48 G	25846143.44	25846143.45	25846143.47	0.1617	0.1599
Mercury	66058-10-29 09:36 G	25848550.80	25848550.90	25848550.99	0.1906	0.1352
Mercury	66061-08-17 07:27 G	25849573.69	25849573.81	25849573.92	0.1618	0.0844
Mercury	66068-03-20 12:43 G	25851980.89	25851981.03	25851981.17	0.1904	0.0074
Mercury	66071-01-07 15:51 G	25853004.02	25853004.16	25853004.30	0.1619	0.0071
Mercury	66077-08-10 15:51 G	25855411.08	25855411.16	25855411.24	0.1902	0.1494
Mercury	66080-05-29 23:46 G	25856434.37	25856434.49	25856434.62	0.1620	0.0728
Mercury	66089-10-20 07:55 G	25859864.79	25859864.83	25859864.87	0.1621	0.1535
Mercury	66098-04-29 09:51 G	25862977.83	25862977.91	25862977.99	0.1906	0.1530
Mercury	66101-02-16 07:41 G	25864000.71	25864000.82	25864000.93	0.1618	0.0968
Mercury	66107-09-20 12:29 G	25866407.89	25866408.02	25866408.16	0.1904	0.0083
Venus	66109-03-05 20:39 G	25866940.21	25866940.36	25866940.51	0.1733	0.0876
Mercury	66110-07-09 16:05 G	25867431.03	25867431.17	25867431.30	0.1619	0.0202
Venus	66113-10-18 10:19 G	25868627.80	25868627.93	25868628.06	0.1783	0.1180
Mercury	66117-02-09 16:05 G	25869838.08	25869838.17	25869838.27	0.1903	0.1332
Mercury	66119-11-30 00:15 G	25870861.38	25870861.51	25870861.64	0.1620	0.0591
Mercury	66129-04-21 08:10 G	25874291.77	25874291.84	25874291.90	0.1621	0.1402
Mercury	66137-10-29 10:05 G	25877404.86	25877404.92	25877404.98	0.1906	0.1684
Mercury	66140-08-17 07:55 G	25878427.73	25878427.83	25878427.93	0.1618	0.1091
Mercury	66147-03-21 12:58 G	25880834.90	25880835.04	25880835.18	0.1904	0.0225
Mercury	66150-01-07 16:05 G	25881858.04	25881858.17	25881858.31	0.1619	0.0327
Mercury	66156-08-10 16:05 G	25884265.07	25884265.17	25884265.28	0.1902	0.1186
Moon	66157-04-16 07:55 G	25884513.69	25884513.83	25884513.98	0.1678	0.0922
Earth	66157-04-16 09:07 G	25884513.72	25884513.88	25884514.04	0.1678	0.0895 *
Mercury	66159-05-31 00:15 G	25885288.38	25885288.51	25885288.65	0.1620	0.0467
Mercury	66168-10-20 08:24 G	25888718.77	25888718.85	25888718.93	0.1621	0.1266

Venus	66175-01-01 05:31 G	25890982.61	25890982.73	25890982.84	0.1730	0.1286
Mercury	66177-04-29 10:19 G	25891831.89	25891831.93	25891831.96	0.1906	0.1835
Venus	66179-08-15 17:46 G	25892670.08	25892670.24	25892670.40	0.1787	0.0676
Mercury	66180-02-16 08:10 G	25892854.75	25892854.84	25892854.92	0.1618	0.1219
Mercury	66186-09-19 13:12 G	25895261.92	25895262.05	25895262.18	0.1904	0.0389
Mercury	66189-07-08 16:34 G	25896285.05	25896285.19	25896285.32	0.1619	0.0454
Mercury	66196-02-09 16:19 G	25898692.07	25898692.18	25898692.30	0.1902	0.1028
Mercury	66198-11-29 00:29 G	25899715.39	25899715.52	25899715.66	0.1620	0.0339
Venus	66207-01-01 10:05 G	25902669.88	25902669.92	25902669.97	0.1740	0.1663
Mercury	66208-04-21 08:39 G	25903145.76	25903145.86	25903145.96	0.1621	0.1136
Mercury	66219-08-18 08:10 G	25907281.77	25907281.84	25907281.92	0.1618	0.1339
Mercury	66226-03-21 13:12 G	25909688.92	25909689.05	25909689.18	0.1904	0.0530
Mercury	66229-01-07 16:34 G	25910712.07	25910712.19	25910712.32	0.1619	0.0578
Mercury	66235-08-11 16:34 G	25913119.07	25913119.19	25913119.31	0.1903	0.0872
Moon	66236-04-19 07:41 G	25913370.72	25913370.82	25913370.91	0.1675	0.1410
Earth	66236-04-19 14:24 G	25913371.07	25913371.10	25913371.13	0.1674	0.1652
Mercury	66238-05-31 00:58 G	25914142.40	25914142.54	25914142.67	0.1620	0.0203
Venus	66240-10-29 14:10 G	25915025.06	25915025.09	25915025.13	0.1726	0.1679
Venus	66245-06-13 01:12 G	25916712.38	25916712.55	25916712.72	0.1790	0.0175
Mercury	66247-10-21 08:53 G	25917572.76	25917572.87	25917572.98	0.1621	0.1005
Mercury	66259-02-16 08:24 G	25921708.80	25921708.85	25921708.91	0.1618	0.1462
Mercury	66265-09-19 13:27 G	25924115.93	25924116.06	25924116.19	0.1904	0.0689
Mercury	66268-07-08 16:48 G	25925139.08	25925139.20	25925139.33	0.1619	0.0703
Venus	66272-10-28 18:29 G	25926712.15	25926712.27	25926712.40	0.1736	0.1234
Mercury	66275-02-09 16:48 G	25927546.07	25927546.20	25927546.32	0.1902	0.0715
Mercury	66277-11-29 00:58 G	25928569.41	25928569.54	25928569.68	0.1620	0.0088
Mercury	66287-04-21 09:07 G	25931999.76	25931999.88	25932000.00	0.1622	0.0871
Mercury	66298-08-17 08:39 G	25936135.84	25936135.86	25936135.88	0.1618	0.1588
Mercury	66305-03-21 13:55 G	25938542.96	25938543.08	25938543.20	0.1904	0.0867
Mercury	66308-01-08 17:03 G	25939566.10	25939566.21	25939566.33	0.1619	0.0829

Venus	66311-04-11 08:10 G	25940754.67	25940754.84	25940755.01	0.1794	0.0354
Mercury	66314-08-11 16:48 G	25941973.07	25941973.20	25941973.33	0.1902	0.0570
Mercury	66317-05-31 01:12 G	25942996.42	25942996.55	25942996.69	0.1620	0.0067
Mercury	66326-10-21 09:22 G	25946426.77	25946426.89	25946427.01	0.1621	0.0740
Mercury	66336-03-12 17:17 G	25949857.18	25949857.22	25949857.25	0.1623	0.1555
Venus	66338-08-27 03:36 G	25950754.50	25950754.65	25950754.80	0.1733	0.0820
Mercury	66344-09-19 13:41 G	25952969.96	25952970.07	25952970.19	0.1904	0.0993
Mercury	66347-07-09 17:17 G	25953993.11	25953993.22	25953993.33	0.1619	0.0953
Mercury	66354-02-09 17:17 G	25956400.08	25956400.22	25956400.35	0.1903	0.0403
Mercury	66356-11-29 01:41 G	25957423.43	25957423.57	25957423.70	0.1620	0.0190
Mercury	66363-07-02 20:39 G	25959830.32	25959830.36	25959830.41	0.1900	0.1771
Mercury	66366-04-21 09:36 G	25960853.77	25960853.90	25960854.03	0.1621	0.0611
Mercury	66375-09-11 17:31 G	25964284.16	25964284.23	25964284.29	0.1623	0.1422
Venus	66377-02-05 15:36 G	25964797.00	25964797.15	25964797.30	0.1798	0.0873
Mercury	66384-03-20 14:10 G	25967396.98	25967397.09	25967397.20	0.1904	0.1166
Mercury	66387-01-07 17:31 G	25968420.13	25968420.23	25968420.33	0.1619	0.1078
Mercury	66393-08-10 17:17 G	25970827.08	25970827.22	25970827.35	0.1902	0.0259
Mercury	66396-05-30 01:41 G	25971850.44	25971850.57	25971850.71	0.1620	0.0311
Mercury	66402-12-31 20:39 G	25974257.30	25974257.36	25974257.43	0.1900	0.1634
Venus	66404-06-23 12:15 G	25974796.84	25974797.01	25974797.18	0.1729	0.0402
Mercury	66405-10-20 09:51 G	25975280.78	25975280.91	25975281.04	0.1622	0.0478
Mercury	66415-03-12 17:46 G	25978711.16	25978711.24	25978711.32	0.1623	0.1284
Mercury	66423-09-19 14:24 G	25981824.00	25981824.10	25981824.20	0.1904	0.1330
Mercury	66426-07-08 17:46 G	25982847.15	25982847.24	25982847.33	0.1619	0.1203
Mercury	66433-02-08 17:31 G	25985254.09	25985254.23	25985254.36	0.1902	0.0103
Mercury	66435-11-29 01:55 G	25986277.45	25986277.58	25986277.72	0.1620	0.0437
Earth	66441-04-19 09:07 G	25988245.70	25988245.88	25988246.07	0.1683	0.0233
Moon	66441-04-19 15:36 G	25988245.96	25988246.15	25988246.34	0.1683	0.0013 *
Mercury	66442-07-01 20:53 G	25988684.29	25988684.37	25988684.46	0.1900	0.1472
Venus	66442-12-03 22:34 G	25988839.34	25988839.44	25988839.55	0.1802	0.1408

Mercury	66445-04-20 10:05 G	25989707.79	25989707.92	25989708.06	0.1622	0.0350
Mercury	66454-09-10 18:00 G	25993138.15	25993138.25	25993138.34	0.1623	0.1156
Mercury	66463-03-20 14:24 G	25996251.01	25996251.10	25996251.18	0.1904	0.1470
Mercury	66466-01-06 18:00 G	25997274.17	25997274.25	25997274.32	0.1619	0.1327
Venus	66470-04-20 21:07 G	25998839.21	25998839.38	25998839.56	0.1726	0.0031
Mercury	66472-08-09 17:46 G	25999681.10	25999681.24	25999681.37	0.1903	0.0065
Mercury	66475-05-30 02:24 G	26000704.47	26000704.60	26000704.72	0.1620	0.0568
Mercury	66481-12-30 21:07 G	26003111.29	26003111.38	26003111.48	0.1900	0.1312
Mercury	66484-10-19 10:19 G	26004134.80	26004134.93	26004135.07	0.1621	0.0222
Mercury	66494-03-11 18:15 G	26007565.15	26007565.26	26007565.37	0.1623	0.1021
Mercury	66502-09-19 14:39 G	26010678.04	26010678.11	26010678.18	0.1904	0.1633
Mercury	66505-07-08 18:15 G	26011701.20	26011701.26	26011701.32	0.1619	0.1450
Mercury	66512-02-09 17:46 G	26014108.11	26014108.24	26014108.38	0.1902	0.0215
Moon	66513-10-19 22:34 G	26014726.27	26014726.44	26014726.60	0.1841	0.1225
Earth	66513-10-20 03:07 G	26014726.49	26014726.63	26014726.76	0.1841	0.1341 *
Mercury	66514-11-29 02:24 G	26015131.48	26015131.60	26015131.73	0.1620	0.0689
Mercury	66521-07-01 21:07 G	26017538.28	26017538.38	26017538.49	0.1900	0.1180
Mercury	66524-04-20 10:34 G	26018561.81	26018561.94	26018562.08	0.1622	0.0094
Mercury	66533-09-10 18:29 G	26021992.16	26021992.27	26021992.39	0.1623	0.0887
Venus	66536-02-17 06:15 G	26022881.59	26022881.76	26022881.94	0.1723	0.0394
Venus	66540-09-30 15:07 G	26024569.02	26024569.13	26024569.23	0.1794	0.1424
Mercury	66542-03-20 15:07 G	26025105.09	26025105.13	26025105.17	0.1904	0.1807
Mercury	66545-01-06 18:29 G	26026128.24	26026128.27	26026128.30	0.1619	0.1573
Mercury	66551-08-10 18:00 G	26028535.12	26028535.25	26028535.38	0.1902	0.0361
Mercury	66554-05-30 02:39 G	26029558.50	26029558.61	26029558.73	0.1620	0.0815
Mercury	66560-12-30 21:36 G	26031965.28	26031965.40	26031965.51	0.1900	0.1011
Mercury	66563-10-20 10:48 G	26032988.82	26032988.95	26032989.09	0.1622	0.0056
Mercury	66573-03-11 18:43 G	26036419.16	26036419.28	26036419.40	0.1623	0.0759
Mercury	66582-08-02 02:24 G	26039849.57	26039849.60	26039849.64	0.1625	0.1571
Mercury	66591-02-08 18:15 G	26042962.13	26042962.26	26042962.39	0.1903	0.0536

Mercury	66593-11-28 03:07 G	26043985.52	26043985.63	26043985.74	0.1620	0.0946
Mercury	66600-07-01 21:36 G	26046392.28	26046392.40	26046392.52	0.1900	0.0859
Venus	66601-12-15 15:22 G	26046923.99	26046924.14	26046924.30	0.1720	0.0782
Mercury	66603-04-21 11:03 G	26047415.83	26047415.96	26047416.10	0.1621	0.0169
Venus	66606-07-29 22:05 G	26048611.28	26048611.42	26048611.57	0.1798	0.0902
Mercury	66612-09-10 18:58 G	26050846.16	26050846.29	26050846.42	0.1623	0.0628
Mercury	66622-02-01 02:39 G	26054276.55	26054276.61	26054276.68	0.1625	0.1441
Mercury	66630-08-10 18:15 G	26057389.14	26057389.26	26057389.39	0.1902	0.0673
Mercury	66633-05-30 03:07 G	26058412.53	26058412.63	26058412.73	0.1620	0.1066
Mercury	66639-12-31 21:51 G	26060819.28	26060819.41	26060819.53	0.1900	0.0720
Mercury	66642-10-20 11:17 G	26061842.84	26061842.97	26061843.11	0.1622	0.0302
Mercury	66652-03-11 19:27 G	26065273.17	26065273.31	26065273.44	0.1623	0.0496
Mercury	66661-08-02 03:07 G	26068703.54	26068703.63	26068703.71	0.1625	0.1308
Venus	66667-10-13 00:58 G	26070966.41	26070966.54	26070966.66	0.1716	0.1150
Mercury	66670-02-08 18:43 G	26071816.15	26071816.28	26071816.40	0.1902	0.0832
Venus	66672-05-26 05:17 G	26072653.55	26072653.72	26072653.89	0.1801	0.0380
Mercury	66672-11-28 03:22 G	26072839.55	26072839.64	26072839.73	0.1620	0.1190
Mercury	66679-07-01 22:05 G	26075246.29	26075246.42	26075246.54	0.1900	0.0559
Mercury	66682-04-20 11:31 G	26076269.85	26076269.98	26076270.12	0.1622	0.0425
Mercury	66688-11-21 01:41 G	26078676.57	26078676.57	26078676.58	0.1897	0.1894
Mercury	66691-09-10 19:27 G	26079700.18	26079700.31	26079700.45	0.1623	0.0368
Venus	66699-10-12 04:05 G	26082653.64	26082653.67	26082653.71	0.1726	0.1684
Mercury	66701-02-01 03:22 G	26083130.55	26083130.64	26083130.74	0.1625	0.1167
Mercury	66709-08-10 18:58 G	26086243.17	26086243.29	26086243.40	0.1903	0.0992
Mercury	66712-05-30 03:51 G	26087266.58	26087266.66	26087266.73	0.1620	0.1319
Mercury	66718-12-31 22:19 G	26089673.30	26089673.43	26089673.56	0.1900	0.0399
Mercury	66721-10-20 11:46 G	26090696.86	26090696.99	26090697.12	0.1621	0.0551
Moon	66725-04-23 05:46 G	26091977.56	26091977.74	26091977.93	0.1689	0.0520
Earth	66725-04-23 09:36 G	26091977.72	26091977.90	26091978.08	0.1689	0.0454 *
Mercury	66728-05-23 01:55 G	26093103.53	26093103.58	26093103.63	0.1897	0.1738

Mercury	66731-03-12 19:55 G	26094127.19	26094127.33	26094127.46	0.1623	0.0239
Venus	66733-08-10 10:05 G	26095008.84	26095008.92	26095009.00	0.1713	0.1528
Venus	66738-03-24 12:00 G	26096695.83	26096696.00	26096696.17	0.1805	0.0170
Mercury	66740-08-02 03:36 G	26097557.54	26097557.65	26097557.75	0.1625	0.1042
Mercury	66749-02-08 18:58 G	26100670.18	26100670.29	26100670.40	0.1902	0.1139
Mercury	66751-11-29 03:51 G	26101693.60	26101693.66	26101693.72	0.1620	0.1438
Mercury	66758-07-01 22:19 G	26104100.29	26104100.43	26104100.56	0.1900	0.0264
Mercury	66761-04-20 12:15 G	26105123.88	26105124.01	26105124.13	0.1622	0.0682
Venus	66765-08-09 13:27 G	26106695.95	26106696.06	26106696.18	0.1723	0.1293
Mercury	66767-11-22 02:24 G	26107530.52	26107530.60	26107530.67	0.1897	0.1578
Mercury	66770-09-10 20:10 G	26108554.20	26108554.34	26108554.47	0.1623	0.0111
Mercury	66780-02-01 03:51 G	26111984.55	26111984.66	26111984.78	0.1625	0.0908
Mercury	66788-08-09 19:12 G	26115097.20	26115097.30	26115097.40	0.1902	0.1289
Mercury	66791-05-30 04:05 G	26116120.64	26116120.67	26116120.71	0.1620	0.1562
Moon	66797-10-21 12:58 G	26118456.85	26118457.04	26118457.22	0.1832	0.0106
Earth	66797-10-21 17:31 G	26118457.03	26118457.23	26118457.43	0.1833	0.0337 *
Mercury	66797-12-30 22:34 G	26118527.31	26118527.44	26118527.58	0.1900	0.0097
Mercury	66800-10-19 12:15 G	26119550.90	26119551.01	26119551.13	0.1622	0.0804
Venus	66804-01-19 18:58 G	26120738.14	26120738.29	26120738.45	0.1809	0.0706
Mercury	66807-05-23 02:10 G	26121957.51	26121957.59	26121957.68	0.1897	0.1445
Mercury	66810-03-11 20:24 G	26122981.21	26122981.35	26122981.49	0.1623	0.0041
Mercury	66819-08-02 04:05 G	26126411.55	26126411.67	26126411.80	0.1625	0.0772
Mercury	66828-02-08 19:27 G	26129524.23	26129524.31	26129524.40	0.1902	0.1465
Mercury	66828-12-22 11:46 G	26129841.96	26129841.99	26129842.01	0.1627	0.1596
Venus	66831-06-06 22:34 G	26130738.29	26130738.44	26130738.58	0.1719	0.0894
Mercury	66837-06-30 22:48 G	26132954.31	26132954.45	26132954.58	0.1900	0.0066
Mercury	66840-04-19 12:29 G	26133977.91	26133978.02	26133978.14	0.1621	0.0928
Mercury	66846-11-21 02:24 G	26136384.51	26136384.60	26136384.70	0.1897	0.1290
Mercury	66849-09-09 20:39 G	26137408.22	26137408.36	26137408.49	0.1623	0.0156
Mercury	66859-01-31 04:19 G	26140838.56	26140838.68	26140838.81	0.1625	0.0646

Mercury	66867-08-09 19:27 G	26143951.24	26143951.31	26143951.38	0.1902	0.1596
Mercury	66868-06-22 12:00 G	26144268.94	26144269.00	26144269.06	0.1627	0.1461
Venus	66869-11-16 01:41 G	26144780.45	26144780.57	26144780.69	0.1813	0.1260
Mercury	66876-12-29 22:48 G	26147381.32	26147381.45	26147381.59	0.1900	0.0203
Mercury	66879-10-19 12:58 G	26148404.93	26148405.04	26148405.14	0.1622	0.1058
Mercury	66886-05-22 02:53 G	26150811.51	26150811.62	26150811.72	0.1897	0.1127
Mercury	66889-03-10 20:53 G	26151835.23	26151835.37	26151835.51	0.1623	0.0282
Venus	66897-04-03 07:55 G	26154780.66	26154780.83	26154780.99	0.1716	0.0516
Mercury	66898-08-01 04:34 G	26155265.56	26155265.69	26155265.83	0.1625	0.0517
Mercury	66907-02-08 19:41 G	26158378.28	26158378.32	26158378.37	0.1902	0.1757
Mercury	66907-12-23 12:15 G	26158695.93	26158696.01	26158696.09	0.1627	0.1328
Mercury	66916-06-30 23:03 G	26161808.33	26161808.46	26161808.60	0.1900	0.0361
Mercury	66919-04-20 12:58 G	26162831.95	26162832.04	26162832.14	0.1622	0.1179
Mercury	66925-11-21 02:39 G	26165238.50	26165238.61	26165238.72	0.1897	0.0998
Mercury	66928-09-09 21:07 G	26166262.25	26166262.38	26166262.51	0.1623	0.0407
Earth	66930-04-23 02:24 G	26166852.54	26166852.60	26166852.67	0.1698	0.1590
Moon	66930-04-23 06:29 G	26166852.73	26166852.77	26166852.80	0.1698	0.1656
Venus	66935-09-14 08:24 G	26168822.84	26168822.85	26168822.87	0.1816	0.1809
Mercury	66938-01-31 05:03 G	26169692.57	26169692.71	26169692.84	0.1625	0.0378
Mercury	66947-06-23 12:29 G	26173122.93	26173123.02	26173123.12	0.1627	0.1196
Mercury	66955-12-30 23:17 G	26176235.34	26176235.47	26176235.60	0.1900	0.0514
Mercury	66958-10-19 13:12 G	26177258.97	26177259.05	26177259.13	0.1621	0.1302
Venus	66963-01-30 17:17 G	26178823.05	26178823.22	26178823.40	0.1713	0.0138
Mercury	66965-05-22 02:53 G	26179665.51	26179665.62	26179665.74	0.1897	0.0841
Venus	66967-09-13 18:58 G	26180510.22	26180510.29	26180510.36	0.1805	0.1638
Mercury	66968-03-10 21:22 G	26180689.26	26180689.39	26180689.52	0.1623	0.0534
Mercury	66977-08-01 05:17 G	26184119.58	26184119.72	26184119.85	0.1625	0.0258
Mercury	66986-12-22 12:43 G	26187549.93	26187550.03	26187550.14	0.1627	0.1061
Mercury	66995-06-30 23:31 G	26190662.35	26190662.48	26190662.60	0.1900	0.0658
Mercury	66998-04-19 13:41 G	26191686.00	26191686.07	26191686.13	0.1622	0.1429

68TH MILLENNIUM CE

This is a list of transits visible from Mars in the 68th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	67004-11-21 03:07	G	26194092.51	26194092.63	26194092.76	0.1897	0.0684	
Mercury	67007-09-10 21:36	G	26195116.28	26195116.40	26195116.53	0.1623	0.0660	
Moon	67009-04-26 04:34	G	26195709.56	26195709.69	26195709.82	0.1695	0.1179	
Earth	67009-04-26 08:53	G	26195709.74	26195709.87	26195710.02	0.1695	0.1111	*
Mercury	67017-01-31 05:31	G	26198546.59	26198546.73	26198546.87	0.1625	0.0126	
Mercury	67026-06-23 13:12	G	26201976.93	26201977.05	26201977.16	0.1627	0.0931	
Venus	67028-11-28 02:39	G	26202865.44	26202865.61	26202865.79	0.1710	0.0236	
Venus	67033-07-12 01:41	G	26204552.43	26204552.57	26204552.71	0.1809	0.1091	
Mercury	67034-12-30 23:46	G	26205089.37	26205089.49	26205089.61	0.1900	0.0816	
Mercury	67037-10-19 13:41	G	26206113.04	26206113.07	26206113.11	0.1622	0.1547	
Mercury	67044-05-22 03:07	G	26208519.50	26208519.63	26208519.76	0.1897	0.0551	
Mercury	67047-03-11 21:51	G	26209543.29	26209543.41	26209543.53	0.1623	0.0787	
Mercury	67053-10-12 07:27	G	26211949.78	26211949.81	26211949.84	0.1894	0.1838	
Mercury	67056-08-01 05:46	G	26212973.60	26212973.74	26212973.88	0.1625	0.0023	
Mercury	67065-12-22 13:27	G	26216403.94	26216404.06	26216404.18	0.1627	0.0800	
Mercury	67074-06-30 23:46	G	26219516.38	26219516.49	26219516.61	0.1900	0.0964	
Mercury	67075-05-14 20:53	G	26219834.36	26219834.37	26219834.38	0.1629	0.1622	
Earth	67081-10-23 09:51	G	26222187.72	26222187.91	26222188.10	0.1824	0.0516	
Moon	67081-10-23 18:15	G	26222188.07	26222188.26	26222188.46	0.1824	0.0410	*

Mercury	67083-11-21 03:22 G	26222946.51	26222946.64	26222946.77	0.1897	0.0397
Mercury	67086-09-09 22:05 G	26223970.31	26223970.42	26223970.53	0.1623	0.0912
Mercury	67093-04-12 07:27 G	26226376.76	26226376.81	26226376.87	0.1894	0.1694
Venus	67094-09-25 12:29 G	26226907.85	26226908.02	26226908.18	0.1707	0.0589
Mercury	67096-01-31 06:00 G	26227400.61	26227400.75	26227400.89	0.1625	0.0132
Venus	67099-05-09 08:24 G	26228594.68	26228594.85	26228595.01	0.1813	0.0546
Mercury	67105-06-23 13:41 G	26230830.94	26230831.07	26230831.20	0.1627	0.0666
Mercury	67113-12-31 00:00 G	26233943.39	26233943.50	26233943.61	0.1900	0.1114
Mercury	67114-11-13 21:07 G	26234261.33	26234261.38	26234261.44	0.1629	0.1484
Mercury	67123-05-23 03:36 G	26237373.52	26237373.65	26237373.79	0.1897	0.0244
Mercury	67126-03-11 22:19 G	26238397.33	26238397.43	26238397.54	0.1623	0.1037
Mercury	67132-10-12 07:27 G	26240803.74	26240803.81	26240803.89	0.1894	0.1556
Mercury	67135-08-02 06:15 G	26241827.62	26241827.76	26241827.90	0.1625	0.0259
Mercury	67144-12-22 13:55 G	26245257.95	26245258.08	26245258.21	0.1627	0.0536
Mercury	67153-07-01 00:15 G	26248370.41	26248370.51	26248370.61	0.1900	0.1265
Mercury	67154-05-14 21:22 G	26248688.32	26248688.39	26248688.47	0.1629	0.1355
Venus	67160-07-23 21:51 G	26250950.27	26250950.41	26250950.56	0.1704	0.0955
Mercury	67162-11-21 03:36 G	26251800.52	26251800.65	26251800.78	0.1897	0.0109
Venus	67165-03-06 14:24 G	26252636.93	26252637.10	26252637.28	0.1816	0.0054
Mercury	67165-09-09 22:34 G	26252824.35	26252824.44	26252824.54	0.1623	0.1159
Mercury	67172-04-12 07:55 G	26255230.74	26255230.83	26255230.92	0.1894	0.1394
Mercury	67175-01-31 06:29 G	26256254.64	26256254.77	26256254.91	0.1625	0.0395
Mercury	67184-06-22 14:10 G	26259684.96	26259685.09	26259685.23	0.1627	0.0408
Mercury	67192-12-30 00:29 G	26262797.43	26262797.52	26262797.61	0.1900	0.1418
Mercury	67193-11-12 21:36 G	26263115.31	26263115.40	26263115.49	0.1629	0.1222
Mercury	67202-05-22 03:51 G	26266227.53	26266227.66	26266227.80	0.1897	0.0076
Mercury	67205-03-10 22:48 G	26267251.37	26267251.45	26267251.53	0.1623	0.1284
Mercury	67211-10-12 07:55 G	26269657.73	26269657.83	26269657.92	0.1894	0.1263
Earth	67214-04-26 00:00 G	26270584.35	26270584.50	26270584.65	0.1704	0.1031
Moon	67214-04-26 04:48 G	26270584.55	26270584.70	26270584.85	0.1704	0.1098 *

Mercury	67214-08-01 06:43 G	26270681.65	26270681.78	26270681.91	0.1625	0.0512
Mercury	67223-12-22 14:24 G	26274111.97	26274112.10	26274112.24	0.1627	0.0277
Venus	67226-05-21 07:41 G	26274992.71	26274992.82	26274992.93	0.1700	0.1294
Venus	67231-01-01 21:07 G	26276679.22	26276679.38	26276679.55	0.1820	0.0595
Mercury	67232-06-30 00:29 G	26277224.45	26277224.52	26277224.60	0.1900	0.1563
Mercury	67233-05-13 22:05 G	26277542.31	26277542.42	26277542.52	0.1629	0.1089
Mercury	67241-11-20 04:05 G	26280654.54	26280654.67	26280654.81	0.1897	0.0210
Mercury	67244-09-08 23:03 G	26281678.39	26281678.46	26281678.53	0.1623	0.1405
Mercury	67251-04-12 08:10 G	26284084.73	26284084.84	26284084.94	0.1894	0.1113
Mercury	67254-01-30 06:58 G	26285108.67	26285108.79	26285108.92	0.1625	0.0640
Venus	67258-05-20 09:22 G	26286679.79	26286679.89	26286679.99	0.1710	0.1409
Mercury	67263-06-22 14:39 G	26288538.97	26288539.11	26288539.25	0.1627	0.0153
Mercury	67271-12-30 00:43 G	26291651.48	26291651.53	26291651.59	0.1900	0.1716
Mercury	67272-11-11 22:19 G	26291969.31	26291969.43	26291969.54	0.1629	0.0959
Mercury	67281-05-21 04:05 G	26295081.54	26295081.67	26295081.80	0.1897	0.0337
Mercury	67284-03-09 23:17 G	26296105.43	26296105.47	26296105.51	0.1623	0.1530
Mercury	67290-10-11 08:10 G	26298511.73	26298511.84	26298511.96	0.1894	0.0963
Venus	67292-03-17 17:31 G	26299035.19	26299035.23	26299035.27	0.1697	0.1637
Mercury	67293-07-31 07:12 G	26299535.68	26299535.80	26299535.93	0.1625	0.0769
Venus	67296-10-29 03:07 G	26300721.50	26300721.63	26300721.76	0.1824	0.1181
Mercury	67302-12-22 14:53 G	26302965.98	26302966.12	26302966.26	0.1627	0.0047
Mercury	67311-07-01 00:58 G	26306078.51	26306078.54	26306078.56	0.1900	0.1862
Mercury	67312-05-13 22:34 G	26306396.32	26306396.44	26306396.56	0.1629	0.0827
Mercury	67320-11-20 04:19 G	26309508.55	26309508.68	26309508.81	0.1897	0.0494
Venus	67324-03-17 19:12 G	26310722.16	26310722.30	26310722.44	0.1707	0.1046
Mercury	67330-04-12 08:24 G	26312938.73	26312938.85	26312938.96	0.1894	0.0826
Mercury	67333-01-30 07:27 G	26313962.70	26313962.81	26313962.93	0.1625	0.0888
Mercury	67342-06-22 15:22 G	26317393.00	26317393.14	26317393.27	0.1627	0.0119
Mercury	67351-11-12 22:48 G	26320823.33	26320823.45	26320823.58	0.1629	0.0694
Mercury	67360-05-21 04:34 G	26323935.57	26323935.69	26323935.82	0.1897	0.0650

Mercury	67361-04-04 06:00 G	26324253.71	26324253.75	26324253.80	0.1632	0.1523
Venus	67362-08-27 09:36 G	26324763.86	26324763.90	26324763.95	0.1827	0.1755
Moon	67365-10-24 21:07 G	26325918.35	26325918.38	26325918.42	0.1815	0.1784
Earth	67365-10-25 03:22 G	26325918.51	26325918.64	26325918.79	0.1815	0.1272
Mercury	67369-10-11 08:24 G	26327365.73	26327365.85	26327365.97	0.1894	0.0683
Mercury	67372-07-31 07:41 G	26328389.71	26328389.82	26328389.93	0.1625	0.1012
Mercury	67381-12-21 15:36 G	26331820.01	26331820.15	26331820.28	0.1627	0.0238
Venus	67390-01-13 04:48 G	26334764.54	26334764.70	26334764.86	0.1704	0.0681
Mercury	67391-05-13 23:03 G	26335250.33	26335250.46	26335250.59	0.1629	0.0567
Venus	67394-08-26 21:22 G	26336451.36	26336451.39	26336451.42	0.1816	0.1782
Mercury	67399-11-20 04:34 G	26338362.57	26338362.69	26338362.81	0.1897	0.0773
Mercury	67400-10-04 06:29 G	26338680.70	26338680.77	26338680.84	0.1632	0.1384
Mercury	67409-04-12 08:39 G	26341792.74	26341792.86	26341792.99	0.1894	0.0525
Mercury	67412-01-31 07:55 G	26342816.74	26342816.83	26342816.93	0.1625	0.1141
Mercury	67418-09-02 12:58 G	26345223.00	26345223.04	26345223.07	0.1891	0.1801
Mercury	67421-06-22 15:51 G	26346247.02	26346247.16	26346247.29	0.1627	0.0362
Mercury	67430-11-12 23:17 G	26349677.34	26349677.47	26349677.61	0.1629	0.0438
Mercury	67439-05-22 04:48 G	26352789.59	26352789.70	26352789.82	0.1897	0.0937
Mercury	67440-04-04 06:43 G	26353107.69	26353107.78	26353107.86	0.1632	0.1258
Mercury	67448-10-11 08:39 G	26356219.73	26356219.86	26356219.99	0.1894	0.0396
Mercury	67451-08-01 08:10 G	26357243.76	26357243.84	26357243.93	0.1625	0.1257
Venus	67455-11-11 14:24 G	26358806.93	26358807.10	26358807.27	0.1701	0.0321
Mercury	67458-03-03 12:58 G	26359649.98	26359650.04	26359650.10	0.1891	0.1662
Venus	67460-06-24 03:22 G	26360493.51	26360493.64	26360493.77	0.1820	0.1205
Mercury	67460-12-21 16:05 G	26360674.04	26360674.17	26360674.30	0.1627	0.0489
Mercury	67470-05-13 23:31 G	26364104.35	26364104.48	26364104.62	0.1629	0.0312
Mercury	67478-11-20 05:03 G	26367216.60	26367216.71	26367216.82	0.1897	0.1084
Mercury	67479-10-04 06:58 G	26367534.69	26367534.79	26367534.89	0.1632	0.1125
Mercury	67488-04-11 08:53 G	26370646.74	26370646.87	26370647.00	0.1894	0.0245
Mercury	67491-01-30 08:24 G	26371670.78	26371670.85	26371670.92	0.1625	0.1380

Mercury	67497-09-01 13:12 G	26374076.97	26374077.05	26374077.12	0.1891	0.1519
Moon	67498-04-28 13:27 G	26374315.90	26374316.06	26374316.22	0.1711	0.0910
Earth	67498-04-28 19:41 G	26374316.15	26374316.32	26374316.50	0.1711	0.0538 *
Mercury	67500-06-22 16:19 G	26375101.05	26375101.18	26375101.31	0.1627	0.0611
Mercury	67509-11-12 23:46 G	26378531.36	26378531.49	26378531.63	0.1629	0.0186
Mercury	67518-05-22 05:03 G	26381643.61	26381643.71	26381643.81	0.1897	0.1214
Mercury	67519-04-05 07:12 G	26381961.69	26381961.80	26381961.91	0.1632	0.0989
Venus	67521-09-09 00:15 G	26382849.34	26382849.51	26382849.69	0.1697	0.0027
Venus	67526-04-22 09:22 G	26384535.73	26384535.89	26384536.06	0.1824	0.0627
Mercury	67527-10-12 09:07 G	26385073.75	26385073.88	26385074.01	0.1894	0.0097
Mercury	67530-08-01 08:39 G	26386097.81	26386097.86	26386097.91	0.1625	0.1504
Mercury	67537-03-03 13:12 G	26388503.96	26388504.05	26388504.14	0.1891	0.1372
Mercury	67539-12-22 16:34 G	26389528.06	26389528.19	26389528.31	0.1627	0.0735
Mercury	67549-05-14 00:15 G	26392958.37	26392958.51	26392958.65	0.1629	0.0069
Mercury	67557-11-20 05:17 G	26396070.63	26396070.72	26396070.81	0.1897	0.1369
Mercury	67558-10-04 07:27 G	26396388.69	26396388.81	26396388.93	0.1632	0.0866
Mercury	67567-04-12 09:07 G	26399500.75	26399500.88	26399501.01	0.1894	0.0044
Mercury	67570-01-30 08:53 G	26400524.87	26400524.87	26400524.87	0.1625	0.1622
Mercury	67576-09-01 13:12 G	26402930.96	26402931.05	26402931.15	0.1891	0.1243
Mercury	67579-06-22 16:48 G	26403955.08	26403955.20	26403955.32	0.1627	0.0863
Venus	67587-07-07 10:05 G	26406891.75	26406891.92	26406892.09	0.1695	0.0380
Mercury	67588-11-12 00:29 G	26407385.38	26407385.52	26407385.66	0.1629	0.0083
Venus	67592-02-17 15:07 G	26408577.96	26408578.13	26408578.30	0.1828	0.0026
Mercury	67597-05-21 05:31 G	26410497.65	26410497.73	26410497.81	0.1897	0.1522
Mercury	67598-04-04 07:41 G	26410815.70	26410815.82	26410815.95	0.1632	0.0735
Mercury	67606-10-11 09:07 G	26413927.75	26413927.88	26413928.02	0.1894	0.0193
Mercury	67607-08-25 14:53 G	26414246.08	26414246.12	26414246.16	0.1635	0.1565
Mercury	67616-03-02 13:27 G	26417357.96	26417358.06	26417358.17	0.1891	0.1089
Mercury	67618-12-21 17:03 G	26418382.10	26418382.21	26418382.32	0.1627	0.0983
Mercury	67628-05-13 00:43 G	26421812.39	26421812.53	26421812.66	0.1630	0.0205

Mercury	67636-11-19 05:31 G	26424924.66	26424924.73	26424924.79	0.1897	0.1647
Mercury	67637-10-03 08:10 G	26425242.71	26425242.84	26425242.97	0.1632	0.0599
Mercury	67646-04-11 09:36 G	26428354.77	26428354.90	26428355.03	0.1894	0.0343
Mercury	67647-02-23 15:07 G	26428673.07	26428673.13	26428673.20	0.1634	0.1433
Venus	67653-05-03 19:55 G	26430934.18	26430934.33	26430934.49	0.1691	0.0706
Mercury	67655-09-01 13:41 G	26431784.95	26431785.07	26431785.18	0.1890	0.0954
Venus	67657-12-14 21:22 G	26432620.23	26432620.39	26432620.56	0.1831	0.0566
Mercury	67658-06-21 17:17 G	26432809.12	26432809.22	26432809.32	0.1627	0.1104
Mercury	67667-11-12 00:58 G	26436239.40	26436239.54	26436239.68	0.1629	0.0329
Mercury	67676-05-20 05:46 G	26439351.70	26439351.74	26439351.78	0.1897	0.1809
Mercury	67677-04-03 08:24 G	26439669.71	26439669.85	26439669.98	0.1632	0.0478
Mercury	67685-10-10 09:22 G	26442781.76	26442781.89	26442782.02	0.1894	0.0466
Mercury	67686-08-24 15:22 G	26443100.06	26443100.14	26443100.23	0.1635	0.1300
Mercury	67695-03-02 13:41 G	26446211.95	26446212.07	26446212.19	0.1891	0.0811
Mercury	67697-12-20 17:31 G	26447236.14	26447236.23	26447236.32	0.1627	0.1233
Mercury	67707-05-14 01:12 G	26450666.42	26450666.55	26450666.68	0.1629	0.0453
Mercury	67716-10-03 08:39 G	26454096.72	26454096.86	26454096.99	0.1632	0.0348
Venus	67719-03-02 06:00 G	26454976.62	26454976.75	26454976.89	0.1688	0.1037
Venus	67723-10-13 02:53 G	26456662.48	26456662.62	26456662.75	0.1835	0.1183
Mercury	67725-04-11 09:36 G	26457208.78	26457208.90	26457209.03	0.1894	0.0619
Mercury	67726-02-23 15:51 G	26457527.06	26457527.16	26457527.25	0.1635	0.1169
Mercury	67734-09-01 13:55 G	26460638.95	26460639.08	26460639.20	0.1890	0.0671
Mercury	67737-06-21 17:46 G	26461663.16	26461663.24	26461663.31	0.1627	0.1350
Mercury	67746-11-12 01:27 G	26465093.43	26465093.56	26465093.69	0.1629	0.0579
Venus	67751-03-01 06:58 G	26466663.73	26466663.79	26466663.85	0.1698	0.1582
Mercury	67756-04-03 08:53 G	26468523.73	26468523.87	26468524.01	0.1632	0.0214
Mercury	67764-10-10 09:51 G	26471635.79	26471635.91	26471636.04	0.1894	0.0768
Mercury	67765-08-24 16:05 G	26471954.06	26471954.17	26471954.28	0.1635	0.1039
Mercury	67774-03-02 13:55 G	26475065.96	26475066.08	26475066.21	0.1890	0.0526
Mercury	67776-12-20 18:00 G	26476090.19	26476090.25	26476090.31	0.1627	0.1471

Earth	67782-05-01 14:39 G	26478047.92	26478048.11	26478048.29	0.1717	0.0088
Moon	67782-05-01 15:36 G	26478047.98	26478048.15	26478048.32	0.1717	0.0288 *
Mercury	67783-07-23 18:29 G	26478496.23	26478496.27	26478496.31	0.1887	0.1765
Venus	67784-12-27 16:34 G	26479019.09	26479019.19	26479019.29	0.1686	0.1349
Mercury	67786-05-13 01:41 G	26479520.44	26479520.57	26479520.69	0.1629	0.0702
Venus	67789-08-09 08:53 G	26480704.84	26480704.87	26480704.91	0.1838	0.1783
Mercury	67795-10-03 09:07 G	26482950.74	26482950.88	26482951.02	0.1632	0.0093
Mercury	67804-04-11 09:51 G	26486062.80	26486062.91	26486063.03	0.1894	0.0899
Mercury	67805-02-23 16:19 G	26486381.07	26486381.18	26486381.30	0.1635	0.0903
Mercury	67813-09-01 14:10 G	26489492.96	26489493.09	26489493.22	0.1891	0.0393
Mercury	67816-06-21 18:15 G	26490517.24	26490517.26	26490517.28	0.1627	0.1598
Venus	67816-12-27 16:34 G	26490706.07	26490706.19	26490706.31	0.1695	0.1230
Mercury	67823-01-22 18:43 G	26492923.21	26492923.28	26492923.35	0.1887	0.1614
Mercury	67825-11-12 01:55 G	26493947.46	26493947.58	26493947.70	0.1629	0.0826
Mercury	67835-04-04 09:22 G	26497377.75	26497377.89	26497378.03	0.1632	0.0038
Mercury	67843-10-11 10:05 G	26500489.81	26500489.92	26500490.03	0.1894	0.1040
Mercury	67844-08-24 16:34 G	26500808.07	26500808.19	26500808.32	0.1635	0.0777
Venus	67850-10-26 02:53 G	26503061.60	26503061.62	26503061.64	0.1683	0.1664
Mercury	67853-03-02 14:10 G	26503919.96	26503920.09	26503920.23	0.1890	0.0249
Mercury	67854-01-14 23:31 G	26504238.46	26504238.48	26504238.50	0.1637	0.1614
Mercury	67862-07-23 18:29 G	26507350.20	26507350.27	26507350.35	0.1887	0.1498
Mercury	67865-05-13 02:10 G	26508374.48	26508374.59	26508374.70	0.1630	0.0951
Mercury	67874-10-03 09:51 G	26511804.77	26511804.91	26511805.04	0.1632	0.0176
Venus	67882-10-25 02:39 G	26514748.46	26514748.61	26514748.76	0.1692	0.0888
Mercury	67883-04-11 10:19 G	26514916.83	26514916.93	26514917.04	0.1894	0.1203
Mercury	67884-02-23 16:48 G	26515235.08	26515235.20	26515235.33	0.1635	0.0649
Venus	67887-06-07 03:22 G	26516434.52	26516434.64	26516434.77	0.1831	0.1244
Mercury	67892-08-31 14:24 G	26518346.96	26518347.10	26518347.23	0.1890	0.0123
Mercury	67893-07-16 00:00 G	26518665.44	26518665.50	26518665.55	0.1637	0.1481
Mercury	67902-01-22 18:58 G	26521777.20	26521777.29	26521777.38	0.1887	0.1344

Mercury	67904-11-12 02:24 G	26522801.50	26522801.60	26522801.71	0.1629	0.1075
Mercury	67914-04-04 09:51 G	26526231.78	26526231.91	26526232.05	0.1632	0.0291
Mercury	67922-10-11 10:19 G	26529343.83	26529343.93	26529344.02	0.1894	0.1319
Mercury	67923-08-25 17:17 G	26529662.08	26529662.22	26529662.35	0.1635	0.0515
Mercury	67932-03-02 14:39 G	26532773.97	26532774.11	26532774.24	0.1891	0.0064
Mercury	67933-01-15 00:15 G	26533092.43	26533092.51	26533092.59	0.1637	0.1344
Mercury	67941-07-23 18:58 G	26536204.19	26536204.29	26536204.39	0.1887	0.1202
Mercury	67944-05-13 02:39 G	26537228.52	26537228.61	26537228.70	0.1629	0.1196
Venus	67948-08-22 12:43 G	26538790.87	26538791.03	26538791.20	0.1689	0.0559
Venus	67953-04-04 09:07 G	26540476.72	26540476.88	26540477.04	0.1835	0.0638
Mercury	67953-10-03 10:05 G	26540658.79	26540658.92	26540659.06	0.1632	0.0418
Mercury	67962-04-11 10:34 G	26543770.86	26543770.94	26543771.02	0.1894	0.1474
Mercury	67963-02-23 17:31 G	26544089.09	26544089.23	26544089.37	0.1635	0.0387
Mercury	67971-09-01 14:39 G	26547200.98	26547201.11	26547201.24	0.1890	0.0179
Mercury	67972-07-16 00:29 G	26547519.43	26547519.52	26547519.61	0.1638	0.1216
Mercury	67981-01-21 18:58 G	26550631.18	26550631.29	26550631.40	0.1887	0.1077
Mercury	67983-11-12 02:53 G	26551655.54	26551655.62	26551655.70	0.1630	0.1319
Mercury	67993-04-03 10:34 G	26555085.81	26555085.94	26555086.07	0.1632	0.0546

69TH MILLENNIUM CE

This is a list of transits visible from Mars in the 69th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	68001-10-10 10:48 G	26558197.88	26558197.95	26558198.02	0.1894	0.1623		

Mercury	68002-08-24 17:46 G	26558516.10	26558516.24	26558516.38	0.1635	0.0260
Mercury	68011-03-02 14:53 G	26561627.98	26561628.12	26561628.25	0.1890	0.0326
Mercury	68012-01-15 00:43 G	26561946.43	26561946.53	26561946.64	0.1637	0.1083
Earth	68012-11-01 18:00 G	26562238.24	26562238.25	26562238.27	0.1803	0.1791
Venus	68014-06-19 22:48 G	26562833.27	26562833.45	26562833.62	0.1686	0.0215
Venus	68019-01-30 14:24 G	26564518.93	26564519.10	26564519.28	0.1838	0.0050
Mercury	68020-07-22 19:12 G	26565058.19	26565058.30	26565058.41	0.1887	0.0932
Mercury	68023-05-13 03:07 G	26566082.57	26566082.63	26566082.70	0.1630	0.1441
Mercury	68032-10-02 10:48 G	26569512.82	26569512.95	26569513.07	0.1632	0.0667
Mercury	68041-04-10 10:48 G	26572624.90	26572624.95	26572625.00	0.1894	0.1753
Mercury	68042-02-22 18:15 G	26572943.12	26572943.26	26572943.40	0.1635	0.0136
Mercury	68050-08-31 14:53 G	26576054.99	26576055.12	26576055.25	0.1891	0.0459
Mercury	68051-07-16 01:12 G	26576373.43	26576373.55	26576373.66	0.1637	0.0953
Mercury	68060-01-21 19:27 G	26579485.19	26579485.31	26579485.43	0.1887	0.0783
Mercury	68062-11-11 03:22 G	26580509.61	26580509.64	26580509.68	0.1629	0.1562
Earth	68066-05-04 08:39 G	26581779.67	26581779.86	26581780.04	0.1724	0.0361
Moon	68066-05-04 15:36 G	26581779.96	26581780.15	26581780.34	0.1724	0.0267 *
Mercury	68072-04-02 11:03 G	26583939.84	26583939.96	26583940.08	0.1632	0.0792
Venus	68080-04-16 09:07 G	26586875.71	26586875.88	26586876.06	0.1683	0.0096
Mercury	68081-08-23 18:15 G	26587370.12	26587370.26	26587370.40	0.1635	0.0042
Venus	68084-11-26 20:24 G	26588561.18	26588561.35	26588561.51	0.1842	0.0598
Mercury	68090-03-01 15:07 G	26590482.00	26590482.13	26590482.25	0.1890	0.0603
Mercury	68091-01-14 01:27 G	26590800.44	26590800.56	26590800.68	0.1638	0.0822
Mercury	68099-07-22 19:12 G	26593912.18	26593912.30	26593912.43	0.1887	0.0667
Mercury	68108-12-13 00:15 G	26597342.49	26597342.51	26597342.54	0.1883	0.1846
Mercury	68111-10-03 11:17 G	26598366.86	26598366.97	26598367.09	0.1632	0.0920
Mercury	68121-02-22 18:43 G	26601797.14	26601797.28	26601797.42	0.1635	0.0131
Mercury	68129-08-31 15:07 G	26604909.01	26604909.13	26604909.25	0.1890	0.0738
Mercury	68130-07-16 01:41 G	26605227.44	26605227.57	26605227.70	0.1637	0.0690
Mercury	68139-01-21 19:41 G	26608339.19	26608339.32	26608339.44	0.1887	0.0512

Mercury	68139-12-06 08:39 G	26608657.81	26608657.86	26608657.90	0.1640	0.1530
Venus	68146-02-12 19:41 G	26610918.15	26610918.32	26610918.48	0.1680	0.0414
Mercury	68148-06-13 00:15 G	26611769.46	26611769.51	26611769.56	0.1882	0.1721
Venus	68150-09-25 01:27 G	26612603.43	26612603.56	26612603.69	0.1845	0.1234
Mercury	68151-04-03 11:31 G	26612793.87	26612793.98	26612794.09	0.1632	0.1038
Mercury	68160-08-23 18:58 G	26616224.15	26616224.29	26616224.43	0.1635	0.0255
Mercury	68169-03-01 15:22 G	26619336.03	26619336.14	26619336.26	0.1891	0.0889
Mercury	68170-01-14 01:55 G	26619654.45	26619654.58	26619654.72	0.1637	0.0562
Mercury	68178-07-22 19:41 G	26622766.19	26622766.32	26622766.45	0.1886	0.0372
Mercury	68179-06-06 08:53 G	26623084.80	26623084.87	26623084.94	0.1640	0.1396
Mercury	68187-12-13 00:29 G	26626196.45	26626196.52	26626196.59	0.1883	0.1583
Mercury	68190-10-02 11:46 G	26627220.90	26627220.99	26627221.09	0.1632	0.1163
Mercury	68200-02-22 19:12 G	26630651.16	26630651.30	26630651.44	0.1635	0.0379
Mercury	68208-08-31 15:22 G	26633763.03	26633763.14	26633763.25	0.1890	0.1020
Mercury	68209-07-16 02:24 G	26634081.46	26634081.60	26634081.73	0.1638	0.0434
Venus	68211-12-12 06:15 G	26634960.60	26634960.76	26634960.92	0.1678	0.0711
Mercury	68218-01-21 19:41 G	26637193.19	26637193.32	26637193.45	0.1887	0.0246
Mercury	68218-12-06 09:22 G	26637511.80	26637511.89	26637511.98	0.1640	0.1258
Mercury	68227-06-14 00:43 G	26640623.45	26640623.53	26640623.61	0.1883	0.1434
Mercury	68230-04-03 12:15 G	26641647.92	26641648.01	26641648.09	0.1632	0.1290
Mercury	68239-08-24 19:27 G	26645078.18	26645078.31	26645078.45	0.1635	0.0504
Mercury	68248-03-01 15:36 G	26648190.05	26648190.15	26648190.26	0.1890	0.1165
Mercury	68249-01-14 02:39 G	26648508.47	26648508.61	26648508.75	0.1637	0.0302
Mercury	68257-07-22 19:55 G	26651620.20	26651620.33	26651620.46	0.1887	0.0101
Mercury	68258-06-06 09:36 G	26651938.79	26651938.90	26651939.00	0.1641	0.1132
Mercury	68266-12-13 00:43 G	26655050.43	26655050.53	26655050.62	0.1882	0.1313
Mercury	68269-10-02 12:29 G	26656074.95	26656075.02	26656075.08	0.1632	0.1408
Venus	68277-10-08 17:03 G	26659003.07	26659003.21	26659003.35	0.1675	0.1010
Mercury	68279-02-22 19:55 G	26659505.20	26659505.33	26659505.46	0.1635	0.0636
Mercury	68287-08-31 15:51 G	26662617.06	26662617.16	26662617.25	0.1891	0.1308

Mercury	68288-07-15 02:53 G	26662935.48	26662935.62	26662935.76	0.1637	0.0174
Earth	68296-11-03 16:19 G	26665969.05	26665969.18	26665969.32	0.1795	0.1299
Moon	68296-11-03 20:39 G	26665969.23	26665969.36	26665969.48	0.1795	0.1436 *
Mercury	68297-01-20 20:10 G	26666047.21	26666047.34	26666047.47	0.1886	0.0053
Mercury	68297-12-05 09:51 G	26666365.80	26666365.91	26666366.02	0.1640	0.0997
Mercury	68306-06-14 00:43 G	26669477.43	26669477.53	26669477.63	0.1883	0.1172
Mercury	68309-04-03 12:43 G	26670501.98	26670502.03	26670502.07	0.1632	0.1531
Venus	68309-10-08 16:05 G	26670690.09	26670690.17	26670690.25	0.1683	0.1488
Venus	68314-05-21 02:39 G	26672375.49	26672375.61	26672375.74	0.1842	0.1250
Mercury	68318-08-24 19:55 G	26673932.21	26673932.33	26673932.46	0.1635	0.0756
Mercury	68327-03-02 15:51 G	26677044.08	26677044.16	26677044.25	0.1890	0.1449
Mercury	68328-01-15 03:07 G	26677362.49	26677362.63	26677362.78	0.1638	0.0063
Mercury	68336-07-22 20:10 G	26680474.21	26680474.34	26680474.47	0.1887	0.0173
Mercury	68337-06-06 10:19 G	26680792.81	26680792.93	26680793.05	0.1640	0.0861
Venus	68343-08-07 03:51 G	26683045.56	26683045.66	26683045.77	0.1673	0.1303
Mercury	68345-12-13 00:58 G	26683904.43	26683904.54	26683904.65	0.1883	0.1025
Moon	68350-05-07 20:53 G	26685511.19	26685511.37	26685511.57	0.1732	0.0474
Earth	68350-05-08 02:10 G	26685511.43	26685511.59	26685511.76	0.1731	0.0788 *
Mercury	68358-02-22 20:24 G	26688359.23	26688359.35	26688359.47	0.1635	0.0880
Mercury	68366-08-31 16:05 G	26691471.10	26691471.17	26691471.24	0.1890	0.1583
Mercury	68367-07-16 03:36 G	26691789.51	26691789.65	26691789.79	0.1637	0.0091
Venus	68375-08-06 02:39 G	26694732.48	26694732.61	26694732.73	0.1680	0.1174
Mercury	68376-01-21 20:24 G	26694901.22	26694901.35	26694901.48	0.1887	0.0324
Mercury	68376-12-05 10:34 G	26695219.81	26695219.94	26695220.06	0.1641	0.0738
Venus	68380-03-17 08:10 G	26696417.67	26696417.84	26696418.00	0.1845	0.0619
Mercury	68385-06-13 00:58 G	26698331.43	26698331.54	26698331.65	0.1882	0.0902
Mercury	68386-04-27 17:03 G	26698650.18	26698650.21	26698650.25	0.1644	0.1578
Mercury	68397-08-23 20:39 G	26702786.25	26702786.36	26702786.47	0.1635	0.1009
Mercury	68406-03-01 16:19 G	26705898.13	26705898.18	26705898.23	0.1891	0.1738
Mercury	68407-01-14 03:51 G	26706216.52	26706216.66	26706216.80	0.1637	0.0212

Venus	68409-06-03 14:24 G	26707088.06	26707088.10	26707088.15	0.1670	0.1602
Mercury	68415-07-22 20:39 G	26709328.23	26709328.36	26709328.48	0.1886	0.0465
Mercury	68416-06-05 10:48 G	26709646.82	26709646.95	26709647.08	0.1640	0.0605
Mercury	68424-12-12 01:12 G	26712758.43	26712758.55	26712758.67	0.1883	0.0760
Mercury	68425-10-26 17:31 G	26713077.16	26713077.23	26713077.29	0.1644	0.1444
Mercury	68437-02-21 20:53 G	26717213.27	26717213.37	26717213.47	0.1635	0.1129
Venus	68441-06-02 12:43 G	26718774.88	26718775.03	26718775.18	0.1678	0.0846
Mercury	68445-08-30 16:19 G	26720325.16	26720325.18	26720325.20	0.1890	0.1863
Venus	68446-01-12 13:12 G	26720459.88	26720460.05	26720460.22	0.1849	0.0025
Mercury	68446-07-15 04:05 G	26720643.53	26720643.67	26720643.81	0.1638	0.0338
Mercury	68455-01-20 20:39 G	26723755.23	26723755.36	26723755.48	0.1887	0.0593
Mercury	68455-12-05 11:17 G	26724073.83	26724073.97	26724074.10	0.1640	0.0469
Mercury	68464-06-12 01:27 G	26727185.43	26727185.56	26727185.68	0.1882	0.0613
Mercury	68465-04-26 17:46 G	26727504.16	26727504.24	26727504.33	0.1644	0.1313
Mercury	68473-11-02 06:15 G	26730615.73	26730615.76	26730615.80	0.1878	0.1796
Mercury	68476-08-22 21:07 G	26731640.29	26731640.38	26731640.47	0.1635	0.1249
Mercury	68486-01-13 04:19 G	26735070.55	26735070.68	26735070.82	0.1637	0.0469
Mercury	68494-07-21 20:53 G	26738182.25	26738182.37	26738182.49	0.1887	0.0738
Mercury	68495-06-05 11:31 G	26738500.84	26738500.98	26738501.11	0.1641	0.0348
Mercury	68503-12-13 01:27 G	26741612.43	26741612.56	26741612.68	0.1882	0.0496
Mercury	68504-10-26 18:15 G	26741931.16	26741931.26	26741931.36	0.1644	0.1175
Venus	68507-03-31 23:46 G	26742817.32	26742817.49	26742817.65	0.1675	0.0557
Venus	68511-11-10 18:29 G	26744502.11	26744502.27	26744502.44	0.1852	0.0657
Mercury	68513-05-04 06:29 G	26745042.71	26745042.77	26745042.83	0.1878	0.1656
Mercury	68516-02-22 21:36 G	26746067.33	26746067.40	26746067.47	0.1635	0.1379
Mercury	68525-07-15 04:48 G	26749497.57	26749497.70	26749497.83	0.1637	0.0592
Mercury	68534-01-20 21:07 G	26752609.26	26752609.38	26752609.49	0.1886	0.0884
Mercury	68534-12-05 11:46 G	26752927.85	26752927.99	26752928.13	0.1640	0.0214
Mercury	68543-06-13 01:27 G	26756039.44	26756039.56	26756039.69	0.1882	0.0356
Mercury	68544-04-26 18:29 G	26756358.16	26756358.27	26756358.38	0.1644	0.1048

Mercury	68552-11-02 06:29 G	26759469.70	26759469.77	26759469.85	0.1878	0.1526
Moon	68555-05-07 14:24 G	26760386.02	26760386.10	26760386.18	0.1742	0.1544
Mercury	68555-08-23 21:51 G	26760494.35	26760494.41	26760494.46	0.1635	0.1496
Mercury	68565-01-13 05:03 G	26763924.59	26763924.71	26763924.84	0.1638	0.0719
Venus	68573-01-26 10:19 G	26766859.76	26766859.93	26766860.10	0.1672	0.0251
Mercury	68573-07-21 21:07 G	26767036.27	26767036.38	26767036.49	0.1887	0.1008
Mercury	68574-06-05 12:15 G	26767354.86	26767355.01	26767355.15	0.1640	0.0095
Venus	68577-09-06 23:31 G	26768544.36	26768544.48	26768544.60	0.1855	0.1311
Moon	68580-11-05 08:53 G	26769699.68	26769699.87	26769700.05	0.1786	0.0561
Earth	68580-11-05 17:17 G	26769700.06	26769700.22	26769700.39	0.1786	0.0961
Mercury	68582-12-12 01:41 G	26770466.44	26770466.57	26770466.70	0.1882	0.0211
Mercury	68583-10-26 18:43 G	26770785.17	26770785.28	26770785.40	0.1644	0.0916
Mercury	68592-05-03 06:43 G	26773896.69	26773896.78	26773896.87	0.1878	0.1386
Mercury	68595-02-21 22:05 G	26774921.40	26774921.42	26774921.43	0.1635	0.1618
Mercury	68604-07-15 05:17 G	26778351.60	26778351.72	26778351.84	0.1638	0.0843
Mercury	68613-01-20 21:22 G	26781463.28	26781463.39	26781463.49	0.1887	0.1156
Mercury	68613-12-05 12:29 G	26781781.87	26781782.02	26781782.16	0.1641	0.0065
Mercury	68622-06-13 01:41 G	26784893.44	26784893.57	26784893.70	0.1882	0.0087
Mercury	68623-04-27 19:12 G	26785212.17	26785212.30	26785212.42	0.1644	0.0778
Mercury	68631-11-03 06:43 G	26788323.69	26788323.78	26788323.88	0.1878	0.1255
Mercury	68632-09-17 01:41 G	26788642.56	26788642.57	26788642.58	0.1647	0.1634
Moon	68634-05-10 17:46 G	26789243.10	26789243.24	26789243.38	0.1738	0.1039
Earth	68634-05-10 19:41 G	26789243.19	26789243.32	26789243.46	0.1738	0.1214 *
Venus	68638-11-24 21:22 G	26790902.21	26790902.39	26790902.56	0.1670	0.0044
Mercury	68644-01-14 05:46 G	26792778.62	26792778.74	26792778.85	0.1637	0.0968
Mercury	68652-07-21 21:22 G	26795890.30	26795890.39	26795890.49	0.1886	0.1295
Mercury	68653-06-05 12:43 G	26796208.89	26796209.03	26796209.17	0.1641	0.0171
Mercury	68661-12-12 01:55 G	26799320.45	26799320.58	26799320.71	0.1882	0.0065
Mercury	68662-10-26 19:27 G	26799639.18	26799639.31	26799639.44	0.1644	0.0652
Mercury	68671-05-04 06:58 G	26802750.69	26802750.79	26802750.89	0.1878	0.1118

Mercury	68672-03-18 01:55 G	26803069.53	26803069.58	26803069.64	0.1647	0.1501
Mercury	68683-07-15 06:00 G	26807205.64	26807205.75	26807205.85	0.1638	0.1092
Mercury	68692-01-20 21:36 G	26810317.31	26810317.40	26810317.48	0.1887	0.1427
Mercury	68692-12-04 13:12 G	26810635.91	26810636.05	26810636.18	0.1640	0.0307
Mercury	68701-06-13 02:10 G	26813747.46	26813747.59	26813747.72	0.1882	0.0209
Mercury	68702-04-27 19:41 G	26814066.19	26814066.32	26814066.46	0.1644	0.0525
Venus	68704-09-22 08:10 G	26814944.67	26814944.84	26814945.02	0.1667	0.0327
Mercury	68710-11-03 06:58 G	26817177.68	26817177.79	26817177.90	0.1878	0.0989
Mercury	68711-09-18 02:24 G	26817496.52	26817496.60	26817496.67	0.1647	0.1367
Mercury	68723-01-14 06:15 G	26821632.67	26821632.76	26821632.85	0.1637	0.1216
Mercury	68731-07-22 21:51 G	26824744.33	26824744.41	26824744.48	0.1886	0.1570
Mercury	68732-06-05 13:12 G	26825062.92	26825063.05	26825063.19	0.1641	0.0427
Mercury	68740-12-12 02:10 G	26828174.46	26828174.59	26828174.72	0.1882	0.0326
Venus	68741-05-03 01:12 G	26828316.42	26828316.55	26828316.68	0.1852	0.1218
Mercury	68741-10-26 20:10 G	26828493.20	26828493.34	26828493.48	0.1644	0.0387
Mercury	68750-05-04 07:12 G	26831604.69	26831604.80	26831604.92	0.1878	0.0845
Mercury	68751-03-19 02:39 G	26831923.52	26831923.61	26831923.71	0.1647	0.1233
Mercury	68762-07-15 06:29 G	26836059.69	26836059.77	26836059.85	0.1637	0.1337
Venus	68770-07-20 19:27 G	26838987.15	26838987.31	26838987.47	0.1665	0.0607
Mercury	68771-01-20 21:51 G	26839171.36	26839171.41	26839171.47	0.1886	0.1710
Mercury	68771-12-05 13:41 G	26839489.94	26839490.07	26839490.20	0.1640	0.0551
Mercury	68780-06-12 02:24 G	26842601.47	26842601.60	26842601.73	0.1882	0.0471
Mercury	68781-04-26 20:24 G	26842920.21	26842920.35	26842920.49	0.1644	0.0264
Mercury	68789-11-02 07:12 G	26846031.68	26846031.80	26846031.92	0.1878	0.0720
Mercury	68790-09-17 03:07 G	26846350.52	26846350.63	26846350.73	0.1647	0.1102
Mercury	68799-03-25 12:29 G	26849462.01	26849462.02	26849462.03	0.1873	0.1863
Mercury	68802-01-13 06:43 G	26850486.73	26850486.78	26850486.85	0.1638	0.1463
Venus	68807-02-28 06:15 G	26852358.60	26852358.76	26852358.93	0.1856	0.0567
Mercury	68810-07-21 22:05 G	26853598.39	26853598.42	26853598.44	0.1887	0.1839
Mercury	68811-06-05 13:55 G	26853916.95	26853917.08	26853917.21	0.1640	0.0680

Mercury	68819-12-12 02:39 G	26857028.48	26857028.61	26857028.73	0.1882	0.0615
Mercury	68820-10-25 20:53 G	26857347.22	26857347.37	26857347.51	0.1644	0.0139
Mercury	68829-05-03 07:27 G	26860458.68	26860458.81	26860458.93	0.1878	0.0582
Mercury	68830-03-18 03:22 G	26860777.53	26860777.64	26860777.76	0.1647	0.0967
Venus	68836-05-17 06:15 G	26863029.61	26863029.76	26863029.90	0.1663	0.0895
Mercury	68838-09-23 12:29 G	26863888.98	26863889.02	26863889.07	0.1873	0.1727
Earth	68839-05-09 23:46 G	26864117.42	26864117.49	26864117.56	0.1750	0.1629
Moon	68839-05-10 01:41 G	26864117.46	26864117.57	26864117.69	0.1750	0.1433 *
Mercury	68841-07-14 07:12 G	26864913.76	26864913.80	26864913.83	0.1638	0.1581
Mercury	68850-12-04 14:10 G	26868343.97	26868344.09	26868344.22	0.1641	0.0802
Mercury	68859-06-12 02:24 G	26871455.48	26871455.60	26871455.73	0.1882	0.0737
Mercury	68860-04-25 21:07 G	26871774.24	26871774.38	26871774.52	0.1644	0.0025
Earth	68864-11-07 20:10 G	26873431.16	26873431.34	26873431.52	0.1778	0.0736
Moon	68864-11-07 23:17 G	26873431.30	26873431.47	26873431.64	0.1778	0.0631 *
Venus	68868-05-16 03:36 G	26874716.58	26874716.65	26874716.73	0.1670	0.1506
Mercury	68868-11-01 07:41 G	26874885.69	26874885.82	26874885.94	0.1878	0.0450
Mercury	68869-09-16 03:36 G	26875204.53	26875204.65	26875204.78	0.1647	0.0839
Venus	68872-12-25 11:03 G	26876400.78	26876400.96	26876401.13	0.1859	0.0105
Mercury	68878-03-24 12:43 G	26878315.97	26878316.03	26878316.10	0.1873	0.1586
Mercury	68890-06-04 14:39 G	26882770.99	26882771.11	26882771.22	0.1641	0.0927
Mercury	68898-12-11 02:53 G	26885882.50	26885882.62	26885882.73	0.1882	0.0878
Mercury	68899-10-25 21:22 G	26886201.25	26886201.39	26886201.53	0.1644	0.0125
Venus	68902-03-15 17:31 G	26887072.11	26887072.23	26887072.35	0.1661	0.1169
Mercury	68908-05-03 07:41 G	26889312.69	26889312.82	26889312.95	0.1878	0.0318
Mercury	68909-03-18 04:05 G	26889631.54	26889631.67	26889631.80	0.1647	0.0706
Mercury	68917-09-23 12:43 G	26892742.95	26892743.03	26892743.11	0.1873	0.1472
Earth	68918-05-13 12:00 G	26892974.92	26892975.00	26892975.08	0.1745	0.1584
Moon	68918-05-13 19:27 G	26892975.25	26892975.31	26892975.37	0.1745	0.1651
Mercury	68918-08-08 10:19 G	26893061.89	26893061.93	26893061.98	0.1651	0.1557
Mercury	68929-12-04 14:53 G	26897198.01	26897198.12	26897198.23	0.1640	0.1053

Venus	68934-03-14 14:53 G	26898759.01	26898759.12	26898759.24	0.1668	0.1226
Mercury	68938-06-12 03:07 G	26900309.52	26900309.63	26900309.74	0.1882	0.1022
Venus	68938-10-23 15:51 G	26900443.00	26900443.16	26900443.32	0.1862	0.0763
Mercury	68939-04-26 21:51 G	26900628.27	26900628.41	26900628.55	0.1644	0.0254
Mercury	68947-11-02 07:41 G	26903739.69	26903739.82	26903739.95	0.1878	0.0187
Mercury	68948-09-16 04:19 G	26904058.55	26904058.68	26904058.82	0.1647	0.0576
Mercury	68957-03-24 12:58 G	26907169.95	26907170.04	26907170.13	0.1873	0.1326
Mercury	68958-02-06 10:34 G	26907488.88	26907488.94	26907489.01	0.1651	0.1431
Venus	68968-01-11 04:34 G	26911114.61	26911114.69	26911114.78	0.1658	0.1441
Mercury	68969-06-04 15:07 G	26911625.03	26911625.13	26911625.23	0.1641	0.1171
Mercury	68977-12-11 02:53 G	26914736.52	26914736.62	26914736.73	0.1882	0.1135
Mercury	68978-10-25 22:05 G	26915055.28	26915055.42	26915055.56	0.1644	0.0383
Mercury	68987-05-03 07:55 G	26918166.70	26918166.83	26918166.96	0.1878	0.0061
Mercury	68988-03-17 04:48 G	26918485.56	26918485.70	26918485.83	0.1647	0.0448
Mercury	68996-09-22 12:58 G	26921596.94	26921597.04	26921597.14	0.1873	0.1198
Mercury	68997-08-07 11:03 G	26921915.87	26921915.96	26921916.05	0.1651	0.1296
Venus	69000-01-10 01:41 G	26922801.42	26922801.57	26922801.71	0.1665	0.0927

70TH MILLENNIUM CE

This is a list of transits visible from Mars in the 70th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	69004-08-20 20:24 G		26924485.24	26924485.35	26924485.46	0.1865	0.1445	
Mercury	69008-12-04 15:22 G		26926052.06	26926052.14	26926052.23	0.1640	0.1296	

Mercury	69017-06-12 03:07 G	26929163.54	26929163.63	26929163.73	0.1882	0.1284
Mercury	69018-04-26 22:19 G	26929482.30	26929482.43	26929482.57	0.1644	0.0502
Mercury	69026-11-02 07:55 G	26932593.70	26932593.83	26932593.96	0.1878	0.0078
Mercury	69027-09-17 05:03 G	26932912.57	26932912.71	26932912.85	0.1647	0.0317
Mercury	69036-03-24 12:58 G	26936023.94	26936024.04	26936024.15	0.1873	0.1076
Mercury	69037-02-06 11:31 G	26936342.88	26936342.98	26936343.08	0.1651	0.1158
Mercury	69048-06-04 15:51 G	26940479.09	26940479.16	26940479.23	0.1640	0.1419
Mercury	69056-12-11 03:22 G	26943590.56	26943590.64	26943590.73	0.1882	0.1421
Mercury	69057-10-25 22:48 G	26943909.32	26943909.45	26943909.58	0.1644	0.0630
Venus	69065-11-07 12:58 G	26946843.88	26946844.04	26946844.20	0.1663	0.0652
Mercury	69066-05-03 08:10 G	26947020.71	26947020.84	26947020.97	0.1878	0.0218
Mercury	69067-03-18 05:17 G	26947339.58	26947339.72	26947339.87	0.1647	0.0192
Mercury	69075-09-23 13:12 G	26950450.94	26950451.05	26950451.16	0.1873	0.0939
Mercury	69076-08-07 11:46 G	26950769.88	26950769.99	26950770.10	0.1651	0.1036
Mercury	69087-12-04 16:05 G	26954906.12	26954906.17	26954906.21	0.1641	0.1538
Mercury	69096-06-11 03:22 G	26958017.56	26958017.64	26958017.71	0.1882	0.1539
Mercury	69097-04-25 23:03 G	26958336.34	26958336.46	26958336.59	0.1644	0.0758
Venus	69102-06-18 18:15 G	26960215.22	26960215.26	26960215.30	0.1859	0.1799
Mercury	69105-11-02 08:10 G	26961447.72	26961447.84	26961447.97	0.1878	0.0357
Mercury	69106-09-17 05:46 G	26961766.59	26961766.74	26961766.88	0.1647	0.0079
Mercury	69115-03-25 13:27 G	26964877.94	26964878.06	26964878.17	0.1873	0.0803
Mercury	69116-02-07 12:00 G	26965196.88	26965197.00	26965197.12	0.1651	0.0900
Moon	69123-05-13 06:00 G	26967848.68	26967848.75	26967848.82	0.1758	0.1608
Earth	69123-05-13 13:12 G	26967848.94	26967849.05	26967849.16	0.1758	0.1423
Venus	69131-09-06 00:00 G	26970886.33	26970886.50	26970886.67	0.1660	0.0370
Mercury	69135-12-12 03:36 G	26972444.59	26972444.65	26972444.71	0.1882	0.1680
Mercury	69136-10-25 23:17 G	26972763.35	26972763.47	26972763.59	0.1644	0.0874
Mercury	69145-05-03 08:24 G	26975874.72	26975874.85	26975874.97	0.1878	0.0481
Mercury	69146-03-18 06:00 G	26976193.61	26976193.75	26976193.89	0.1647	0.0069
Earth	69148-11-11 00:00 G	26977162.31	26977162.50	26977162.68	0.1769	0.0574

Moon	69148-11-11 04:34 G	26977162.48	26977162.69	26977162.89	0.1770	0.0423 *
Mercury	69154-09-23 13:12 G	26979304.93	26979305.05	26979305.17	0.1873	0.0690
Mercury	69155-08-08 12:29 G	26979623.89	26979624.02	26979624.15	0.1651	0.0766
Mercury	69164-02-13 19:12 G	26982735.26	26982735.30	26982735.33	0.1868	0.1775
Mercury	69164-12-28 18:29 G	26983054.25	26983054.27	26983054.29	0.1655	0.1635
Venus	69168-04-14 22:19 G	26984257.29	26984257.43	26984257.57	0.1862	0.1110
Mercury	69175-06-12 03:51 G	26986871.63	26986871.66	26986871.69	0.1882	0.1823
Mercury	69176-04-25 23:31 G	26987190.37	26987190.48	26987190.60	0.1644	0.1000
Mercury	69184-11-01 08:24 G	26990301.73	26990301.85	26990301.97	0.1878	0.0606
Mercury	69185-09-16 06:15 G	26990620.62	26990620.76	26990620.90	0.1647	0.0196
Mercury	69194-03-24 13:41 G	26993731.94	26993732.07	26993732.19	0.1873	0.0548
Mercury	69195-02-06 12:43 G	26994050.90	26994051.03	26994051.16	0.1651	0.0642
Venus	69197-07-03 11:17 G	26994928.80	26994928.97	26994929.14	0.1658	0.0090
Mercury	69203-08-14 18:58 G	26997162.23	26997162.29	26997162.34	0.1868	0.1666
Mercury	69204-06-28 18:58 G	26997481.23	26997481.29	26997481.35	0.1655	0.1497
Mercury	69215-10-26 00:00 G	27001617.40	27001617.50	27001617.60	0.1644	0.1129
Mercury	69224-05-02 08:39 G	27004728.74	27004728.86	27004728.98	0.1878	0.0752
Mercury	69225-03-17 06:43 G	27005047.64	27005047.78	27005047.92	0.1647	0.0321
Mercury	69233-09-22 13:41 G	27008158.94	27008159.07	27008159.19	0.1873	0.0422
Venus	69234-02-10 02:53 G	27008299.45	27008299.62	27008299.79	0.1865	0.0435
Mercury	69234-08-07 12:58 G	27008477.91	27008478.04	27008478.18	0.1651	0.0513
Mercury	69243-02-12 19:12 G	27011589.23	27011589.30	27011589.37	0.1868	0.1528
Mercury	69243-12-28 19:12 G	27011908.22	27011908.30	27011908.38	0.1655	0.1368
Mercury	69255-04-26 00:15 G	27016044.42	27016044.51	27016044.60	0.1644	0.1243
Venus	69263-04-30 22:19 G	27018971.25	27018971.43	27018971.60	0.1656	0.0192
Mercury	69263-11-01 08:39 G	27019155.74	27019155.86	27019155.97	0.1878	0.0866
Mercury	69264-09-15 06:58 G	27019474.65	27019474.79	27019474.93	0.1647	0.0445
Mercury	69273-03-23 13:41 G	27022585.94	27022586.07	27022586.20	0.1873	0.0293
Mercury	69274-02-05 13:27 G	27022904.92	27022905.06	27022905.20	0.1651	0.0378
Mercury	69282-08-13 19:12 G	27026016.22	27026016.30	27026016.39	0.1868	0.1396

Mercury	69283-06-28 19:27 G	27026335.22	27026335.31	27026335.41	0.1655	0.1239
Mercury	69294-10-25 00:29 G	27030471.44	27030471.52	27030471.60	0.1644	0.1365
Venus	69299-12-08 06:58 G	27032341.62	27032341.79	27032341.96	0.1868	0.0268
Mercury	69303-05-03 08:39 G	27033582.75	27033582.86	27033582.98	0.1878	0.1004
Mercury	69304-03-17 07:12 G	27033901.67	27033901.80	27033901.94	0.1647	0.0570
Mercury	69312-09-22 13:55 G	27037012.95	27037013.08	27037013.21	0.1873	0.0171
Mercury	69313-08-07 13:41 G	27037331.93	27037332.07	27037332.21	0.1651	0.0257
Mercury	69322-02-12 19:12 G	27040443.21	27040443.30	27040443.39	0.1868	0.1280
Mercury	69322-12-28 19:55 G	27040762.23	27040762.33	27040762.44	0.1655	0.1100
Venus	69329-02-26 09:36 G	27043013.74	27043013.90	27043014.07	0.1654	0.0461
Mercury	69334-04-26 00:58 G	27044898.48	27044898.54	27044898.59	0.1644	0.1492
Mercury	69342-11-01 08:53 G	27048009.77	27048009.87	27048009.98	0.1878	0.1140
Mercury	69343-09-16 07:27 G	27048328.69	27048328.81	27048328.94	0.1647	0.0693
Mercury	69352-03-23 13:55 G	27051439.95	27051440.08	27051440.21	0.1873	0.0030
Mercury	69353-02-05 14:10 G	27051758.94	27051759.09	27051759.23	0.1651	0.0134
Mercury	69361-08-13 19:27 G	27054870.21	27054870.31	27054870.41	0.1868	0.1152
Mercury	69362-06-28 20:10 G	27055189.23	27055189.34	27055189.46	0.1655	0.0977
Venus	69365-10-05 11:31 G	27056383.83	27056383.98	27056384.12	0.1871	0.0958
Mercury	69373-10-25 00:58 G	27059325.52	27059325.54	27059325.57	0.1644	0.1606
Mercury	69382-05-02 08:53 G	27062436.78	27062436.87	27062436.97	0.1878	0.1261
Mercury	69383-03-17 07:55 G	27062755.71	27062755.83	27062755.95	0.1647	0.0819
Mercury	69391-09-22 13:55 G	27065866.95	27065867.08	27065867.21	0.1873	0.0091
Mercury	69392-08-06 14:24 G	27066185.96	27066186.10	27066186.24	0.1651	0.0005
Venus	69394-12-24 20:53 G	27067056.21	27067056.37	27067056.53	0.1652	0.0726
Mercury	69401-02-12 19:27 G	27069297.21	27069297.31	27069297.42	0.1868	0.1014
Mercury	69401-12-28 20:39 G	27069616.23	27069616.36	27069616.48	0.1655	0.0845
Earth	69407-05-16 00:15 G	27071580.39	27071580.51	27071580.63	0.1766	0.1328
Moon	69407-05-16 03:51 G	27071580.54	27071580.66	27071580.78	0.1765	0.1265 *
Mercury	69421-11-01 09:07 G	27076863.79	27076863.88	27076863.96	0.1878	0.1389
Mercury	69422-09-16 08:10 G	27077182.72	27077182.84	27077182.96	0.1647	0.0940

Venus	69426-12-24 17:17 G	27078743.17	27078743.22	27078743.26	0.1658	0.1597
Mercury	69431-03-24 14:10 G	27080293.96	27080294.09	27080294.22	0.1873	0.0228
Venus	69431-08-03 15:36 G	27080426.07	27080426.15	27080426.22	0.1874	0.1668
Mercury	69432-02-06 14:39 G	27080612.97	27080613.11	27080613.25	0.1651	0.0124
Moon	69432-11-12 21:07 G	27080893.18	27080893.38	27080893.57	0.1761	0.0056
Earth	69432-11-13 04:48 G	27080893.52	27080893.70	27080893.89	0.1761	0.0469 *
Mercury	69440-08-13 19:27 G	27083724.20	27083724.31	27083724.42	0.1868	0.0905
Mercury	69441-06-28 21:07 G	27084043.25	27084043.38	27084043.51	0.1655	0.0710
Mercury	69450-11-19 02:53 G	27087473.58	27087473.62	27087473.66	0.1659	0.1583
Venus	69460-10-22 08:10 G	27091098.70	27091098.84	27091098.98	0.1650	0.0995
Mercury	69461-05-02 09:22 G	27091290.82	27091290.89	27091290.96	0.1878	0.1534
Mercury	69462-03-17 08:24 G	27091609.74	27091609.85	27091609.96	0.1647	0.1060
Mercury	69470-09-22 14:10 G	27094720.96	27094721.09	27094721.22	0.1873	0.0352
Mercury	69471-08-07 14:53 G	27095039.98	27095040.12	27095040.27	0.1651	0.0258
Mercury	69480-02-12 19:41 G	27098151.20	27098151.32	27098151.44	0.1868	0.0767
Mercury	69480-12-27 21:22 G	27098470.25	27098470.39	27098470.52	0.1655	0.0587
Mercury	69489-07-05 01:12 G	27101581.54	27101581.55	27101581.57	0.1863	0.1848
Mercury	69490-05-20 03:07 G	27101900.57	27101900.63	27101900.70	0.1659	0.1453
Venus	69492-10-21 04:48 G	27102785.60	27102785.70	27102785.80	0.1656	0.1329
Mercury	69500-11-01 09:07 G	27105717.82	27105717.88	27105717.94	0.1877	0.1643
Mercury	69501-09-16 08:39 G	27106036.77	27106036.86	27106036.96	0.1647	0.1187
Mercury	69510-03-24 14:24 G	27109147.97	27109148.10	27109148.22	0.1873	0.0484
Mercury	69511-02-06 15:22 G	27109467.00	27109467.14	27109467.28	0.1651	0.0382
Mercury	69519-08-14 19:41 G	27112578.20	27112578.32	27112578.44	0.1868	0.0638
Mercury	69520-06-28 21:36 G	27112897.26	27112897.40	27112897.54	0.1655	0.0458
Venus	69526-08-20 19:55 G	27115141.22	27115141.33	27115141.44	0.1648	0.1244
Mercury	69529-01-04 01:27 G	27116008.51	27116008.56	27116008.60	0.1863	0.1722
Venus	69529-05-31 13:55 G	27116156.00	27116156.08	27116156.16	0.1868	0.1636
Mercury	69529-11-19 03:36 G	27116327.56	27116327.65	27116327.74	0.1659	0.1319
Mercury	69540-05-02 09:22 G	27120144.86	27120144.89	27120144.93	0.1878	0.1783

Mercury	69541-03-17 09:07 G	27120463.79	27120463.88	27120463.96	0.1647	0.1306
Mercury	69549-09-22 14:24 G	27123574.98	27123575.10	27123575.22	0.1873	0.0608
Mercury	69550-08-07 15:36 G	27123894.01	27123894.15	27123894.29	0.1651	0.0500
Venus	69558-08-19 16:05 G	27126828.03	27126828.17	27126828.30	0.1654	0.1056
Mercury	69559-02-12 19:41 G	27127005.20	27127005.32	27127005.44	0.1868	0.0524
Mercury	69559-12-28 22:05 G	27127324.28	27127324.42	27127324.56	0.1655	0.0324
Mercury	69568-07-05 01:27 G	27130435.50	27130435.56	27130435.63	0.1863	0.1593
Mercury	69569-05-20 03:51 G	27130754.56	27130754.66	27130754.76	0.1659	0.1190
Mercury	69580-09-15 09:22 G	27134890.82	27134890.89	27134890.96	0.1647	0.1424
Mercury	69589-03-23 14:39 G	27138001.99	27138002.11	27138002.23	0.1873	0.0742
Mercury	69590-02-05 15:51 G	27138321.03	27138321.16	27138321.30	0.1651	0.0630
Venus	69592-06-17 06:58 G	27139183.72	27139183.79	27139183.86	0.1646	0.1512
Venus	69595-03-28 17:31 G	27140198.08	27140198.23	27140198.38	0.1872	0.0914
Mercury	69598-08-13 19:55 G	27141432.20	27141432.33	27141432.45	0.1868	0.0397
Mercury	69599-06-28 22:19 G	27141751.28	27141751.43	27141751.57	0.1655	0.0206
Mercury	69608-01-04 01:27 G	27144862.49	27144862.56	27144862.64	0.1863	0.1474
Mercury	69608-11-18 04:19 G	27145181.57	27145181.68	27145181.79	0.1659	0.1056
Mercury	69620-03-16 09:36 G	27149317.86	27149317.90	27149317.95	0.1647	0.1550
Venus	69624-06-16 03:07 G	27150870.48	27150870.63	27150870.79	0.1652	0.0782
Mercury	69628-09-21 14:39 G	27152428.99	27152429.11	27152429.22	0.1873	0.0862
Mercury	69629-08-06 16:19 G	27152748.05	27152748.18	27152748.31	0.1651	0.0751
Mercury	69638-02-11 19:55 G	27155859.21	27155859.33	27155859.46	0.1868	0.0264
Mercury	69638-12-27 22:34 G	27156178.30	27156178.44	27156178.59	0.1655	0.0079
Mercury	69647-07-05 01:27 G	27159289.48	27159289.56	27159289.65	0.1863	0.1352
Mercury	69648-05-19 04:34 G	27159608.57	27159608.69	27159608.81	0.1659	0.0926
Venus	69661-01-22 21:51 G	27164240.24	27164240.41	27164240.58	0.1874	0.0215
Mercury	69668-03-22 14:39 G	27166856.00	27166856.11	27166856.22	0.1873	0.0997
Mercury	69669-02-04 16:34 G	27167175.07	27167175.19	27167175.31	0.1651	0.0872
Mercury	69677-08-12 19:55 G	27170286.20	27170286.33	27170286.46	0.1868	0.0154
Mercury	69678-06-27 23:03 G	27170605.32	27170605.46	27170605.60	0.1655	0.0061

Mercury	69687-01-03 01:41 G	27173716.48	27173716.57	27173716.67	0.1863	0.1220
Mercury	69687-11-18 05:03 G	27174035.58	27174035.71	27174035.83	0.1659	0.0798
Venus	69690-04-13 14:39 G	27174912.94	27174913.11	27174913.27	0.1650	0.0514
Earth	69691-05-17 09:51 G	27175311.78	27175311.91	27175312.04	0.1774	0.1305
Moon	69691-05-17 13:27 G	27175311.93	27175312.06	27175312.19	0.1774	0.1335 *
Mercury	69707-09-22 14:53 G	27181283.01	27181283.12	27181283.22	0.1873	0.1119
Mercury	69708-08-06 16:48 G	27181602.09	27181602.20	27181602.32	0.1651	0.0997
Earth	69716-11-15 11:17 G	27184624.79	27184624.97	27184625.16	0.1753	0.0453
Moon	69716-11-15 14:24 G	27184624.92	27184625.10	27184625.28	0.1753	0.0354 *
Mercury	69717-02-11 20:10 G	27184713.21	27184713.34	27184713.47	0.1868	0.0019
Mercury	69717-12-27 23:17 G	27185032.33	27185032.47	27185032.61	0.1655	0.0178
Mercury	69726-07-05 01:41 G	27188143.47	27188143.57	27188143.67	0.1863	0.1105
Venus	69726-11-21 01:27 G	27188282.39	27188282.56	27188282.72	0.1877	0.0516
Mercury	69727-05-20 05:17 G	27188462.59	27188462.72	27188462.85	0.1659	0.0668
Mercury	69736-10-09 11:17 G	27191892.91	27191892.97	27191893.02	0.1663	0.1536
Mercury	69747-03-23 14:53 G	27195710.03	27195710.12	27195710.22	0.1873	0.1252
Mercury	69748-02-05 17:17 G	27196029.12	27196029.22	27196029.32	0.1651	0.1120
Venus	69756-02-10 02:10 G	27198955.42	27198955.59	27198955.76	0.1648	0.0250
Mercury	69756-08-12 20:10 G	27199140.21	27199140.34	27199140.47	0.1868	0.0123
Mercury	69757-06-27 23:31 G	27199459.34	27199459.48	27199459.62	0.1655	0.0304
Mercury	69766-01-03 01:41 G	27202570.47	27202570.57	27202570.68	0.1863	0.0981
Mercury	69766-11-18 05:46 G	27202889.60	27202889.74	27202889.87	0.1659	0.0539
Mercury	69776-04-09 11:17 G	27206319.90	27206319.97	27206320.05	0.1663	0.1413
Mercury	69786-09-21 14:53 G	27210137.04	27210137.12	27210137.21	0.1873	0.1373
Mercury	69787-08-06 17:31 G	27210456.14	27210456.23	27210456.32	0.1651	0.1237
Venus	69792-09-17 05:31 G	27212324.60	27212324.73	27212324.86	0.1880	0.1225
Mercury	69796-02-11 20:10 G	27213567.21	27213567.34	27213567.47	0.1868	0.0229
Mercury	69796-12-27 00:00 G	27213886.36	27213886.50	27213886.64	0.1655	0.0436
Mercury	69805-07-05 01:55 G	27216997.47	27216997.58	27216997.70	0.1863	0.0848
Mercury	69806-05-20 06:00 G	27217316.61	27217316.75	27217316.89	0.1659	0.0410

Mercury	69815-10-10 11:46 G	27220746.90	27220746.99	27220747.08	0.1663	0.1276
Venus	69821-12-08 13:27 G	27222997.89	27222998.06	27222998.24	0.1646	0.0027
Mercury	69826-03-23 15:07 G	27224564.06	27224564.13	27224564.21	0.1873	0.1503
Mercury	69827-02-05 17:46 G	27224883.17	27224883.24	27224883.32	0.1651	0.1362
Mercury	69835-08-13 20:24 G	27227994.22	27227994.35	27227994.48	0.1868	0.0362
Mercury	69836-06-28 00:15 G	27228313.37	27228313.51	27228313.64	0.1655	0.0553
Mercury	69845-01-03 01:55 G	27231424.46	27231424.58	27231424.70	0.1863	0.0733
Mercury	69845-11-18 06:29 G	27231743.62	27231743.77	27231743.91	0.1659	0.0283
Mercury	69854-05-26 07:55 G	27234854.80	27234854.83	27234854.86	0.1858	0.1782
Mercury	69855-04-10 12:15 G	27235173.91	27235174.01	27235174.11	0.1663	0.1141
Mercury	69865-09-21 15:22 G	27238991.07	27238991.14	27238991.20	0.1873	0.1629
Mercury	69866-08-06 18:15 G	27239310.20	27239310.26	27239310.32	0.1651	0.1482
Mercury	69875-02-11 20:39 G	27242421.23	27242421.36	27242421.48	0.1868	0.0499
Mercury	69875-12-28 00:29 G	27242740.39	27242740.52	27242740.65	0.1655	0.0680
Mercury	69884-07-04 01:55 G	27245851.46	27245851.58	27245851.71	0.1863	0.0611
Mercury	69885-05-19 06:43 G	27246170.63	27246170.78	27246170.92	0.1659	0.0155
Venus	69887-10-06 01:12 G	27247040.37	27247040.55	27247040.72	0.1644	0.0272
Mercury	69893-11-24 07:55 G	27249281.78	27249281.83	27249281.89	0.1857	0.1658
Mercury	69894-10-09 12:29 G	27249600.91	27249601.02	27249601.13	0.1663	0.1017
Mercury	69905-03-23 15:22 G	27253418.10	27253418.14	27253418.18	0.1873	0.1757
Mercury	69906-02-05 18:29 G	27253737.24	27253737.27	27253737.30	0.1651	0.1602
Mercury	69914-08-13 20:24 G	27256848.23	27256848.35	27256848.47	0.1868	0.0602
Mercury	69915-06-29 00:58 G	27257167.42	27257167.54	27257167.67	0.1655	0.0808
Mercury	69924-01-04 02:10 G	27260278.47	27260278.59	27260278.72	0.1863	0.0477
Mercury	69924-11-18 06:58 G	27260597.65	27260597.79	27260597.94	0.1659	0.0044
Mercury	69933-05-26 08:10 G	27263708.77	27263708.84	27263708.91	0.1857	0.1532
Mercury	69934-04-10 12:58 G	27264027.92	27264028.04	27264028.16	0.1663	0.0883
Venus	69953-08-03 12:58 G	27271082.87	27271083.04	27271083.21	0.1642	0.0512
Mercury	69954-02-11 20:39 G	27271275.24	27271275.36	27271275.48	0.1868	0.0741
Mercury	69954-12-28 01:12 G	27271594.43	27271594.55	27271594.67	0.1655	0.0923

Venus	69956-05-13 08:24 G	27272096.74	27272096.85	27272096.97	0.1877	0.1413
Mercury	69963-07-05 02:10 G	27274705.46	27274705.59	27274705.72	0.1862	0.0363
Mercury	69964-05-19 07:27 G	27275024.66	27275024.81	27275024.95	0.1659	0.0103
Mercury	69972-11-24 08:10 G	27278135.76	27278135.84	27278135.92	0.1858	0.1419
Mercury	69973-10-09 13:27 G	27278454.93	27278455.06	27278455.18	0.1663	0.0751
Earth	69975-05-20 18:58 G	27279043.16	27279043.29	27279043.41	0.1782	0.1314
Mercury	69983-03-01 18:43 G	27281885.26	27281885.28	27281885.30	0.1667	0.1640
Mercury	69993-08-12 20:53 G	27285702.25	27285702.37	27285702.48	0.1868	0.0869
Mercury	69994-06-28 01:27 G	27286021.45	27286021.56	27286021.67	0.1655	0.1049
Earth	70000-11-17 19:55 G	27288356.14	27288356.33	27288356.51	0.1745	0.0528
Moon	70000-11-18 01:27 G	27288356.37	27288356.56	27288356.76	0.1745	0.0539 *

71ST MILLENNIUM CE

This is a list of transits visible from Mars in the 71st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	70003-01-03 02:24 G		27289132.47	27289132.60	27289132.72	0.1863	0.0241	
Mercury	70003-11-18 07:41 G		27289451.68	27289451.82	27289451.97	0.1659	0.0231	
Mercury	70012-05-25 08:10 G		27292562.75	27292562.84	27292562.93	0.1857	0.1289	
Mercury	70013-04-09 13:41 G		27292881.93	27292882.07	27292882.20	0.1663	0.0627	
Venus	70019-06-01 00:15 G		27295125.35	27295125.51	27295125.66	0.1640	0.0774	
Venus	70022-03-10 11:46 G		27296138.83	27296138.99	27296139.15	0.1880	0.0670	
Mercury	70022-08-30 19:12 G		27296312.24	27296312.30	27296312.36	0.1668	0.1502	
Mercury	70033-02-10 20:53 G		27300129.26	27300129.37	27300129.48	0.1868	0.0984	

Mercury	70033-12-27 01:55 G	27300448.48	27300448.58	27300448.68	0.1655	0.1178
Mercury	70042-07-04 02:24 G	27303559.48	27303559.60	27303559.73	0.1863	0.0116
Mercury	70043-05-19 08:10 G	27303878.70	27303878.84	27303878.98	0.1659	0.0353
Venus	70051-05-30 19:55 G	27306812.26	27306812.33	27306812.40	0.1646	0.1485
Mercury	70051-11-24 08:10 G	27306989.75	27306989.84	27306989.94	0.1857	0.1171
Mercury	70052-10-08 13:55 G	27307308.94	27307309.08	27307309.22	0.1663	0.0495
Mercury	70062-02-28 19:27 G	27310739.23	27310739.31	27310739.39	0.1668	0.1375
Mercury	70072-08-11 20:53 G	27314556.27	27314556.37	27314556.48	0.1868	0.1114
Mercury	70073-06-27 02:10 G	27314875.50	27314875.59	27314875.68	0.1655	0.1291
Mercury	70082-01-02 02:24 G	27317986.47	27317986.60	27317986.73	0.1862	0.0015
Mercury	70082-11-17 08:24 G	27318305.72	27318305.85	27318305.99	0.1659	0.0483
Venus	70085-03-28 12:15 G	27319167.88	27319168.01	27319168.15	0.1638	0.1002
Venus	70088-01-05 15:51 G	27320180.99	27320181.16	27320181.34	0.1883	0.0049
Mercury	70091-05-25 08:24 G	27321416.74	27321416.85	27321416.95	0.1857	0.1048
Mercury	70092-04-08 14:24 G	27321735.96	27321736.10	27321736.24	0.1663	0.0363
Mercury	70101-08-30 19:55 G	27325166.23	27325166.33	27325166.43	0.1668	0.1242
Mercury	70112-02-11 21:07 G	27328983.28	27328983.38	27328983.48	0.1868	0.1245
Mercury	70112-12-27 02:39 G	27329302.53	27329302.61	27329302.68	0.1655	0.1415
Venus	70117-03-28 07:41 G	27330854.71	27330854.82	27330854.93	0.1644	0.1232
Mercury	70121-07-04 02:39 G	27332413.48	27332413.61	27332413.74	0.1863	0.0139
Mercury	70122-05-19 08:53 G	27332732.73	27332732.87	27332733.00	0.1659	0.0605
Mercury	70130-11-24 08:24 G	27335843.74	27335843.85	27335843.96	0.1857	0.0926
Mercury	70131-10-09 14:39 G	27336162.97	27336163.11	27336163.26	0.1663	0.0241
Mercury	70141-02-28 20:24 G	27339593.24	27339593.35	27339593.46	0.1668	0.1102
Venus	70151-01-25 00:00 G	27343210.39	27343210.50	27343210.61	0.1637	0.1244
Mercury	70151-08-12 21:07 G	27343410.29	27343410.38	27343410.47	0.1868	0.1354
Mercury	70152-06-27 02:53 G	27343729.57	27343729.62	27343729.67	0.1655	0.1540
Venus	70153-11-02 18:58 G	27344223.14	27344223.29	27344223.45	0.1885	0.0799
Mercury	70161-01-02 02:53 G	27346840.49	27346840.62	27346840.74	0.1863	0.0272
Mercury	70161-11-17 09:07 G	27347159.75	27347159.88	27347160.01	0.1659	0.0728

Mercury	70170-05-25 08:39 G	27350270.74	27350270.86	27350270.97	0.1857	0.0803
Mercury	70171-04-09 15:07 G	27350589.99	27350590.13	27350590.27	0.1663	0.0107
Mercury	70179-10-15 14:39 G	27353701.09	27353701.11	27353701.13	0.1851	0.1823
Mercury	70180-08-29 20:39 G	27354020.24	27354020.36	27354020.48	0.1668	0.0980
Venus	70183-01-23 19:27 G	27354897.17	27354897.31	27354897.45	0.1642	0.0978
Mercury	70191-02-10 21:22 G	27357837.31	27357837.39	27357837.47	0.1868	0.1491
Mercury	70191-12-27 03:07 G	27358156.63	27358156.63	27358156.63	0.1655	0.1654
Mercury	70200-07-04 02:39 G	27361267.49	27361267.61	27361267.74	0.1862	0.0380
Mercury	70201-05-19 09:36 G	27361586.77	27361586.90	27361587.02	0.1659	0.0856
Mercury	70209-11-24 08:39 G	27364697.74	27364697.86	27364697.98	0.1857	0.0685
Mercury	70210-10-09 15:36 G	27365017.00	27365017.15	27365017.29	0.1663	0.0048
Venus	70216-11-22 12:00 G	27367252.93	27367253.00	27367253.08	0.1635	0.1476
Mercury	70219-04-16 14:53 G	27368128.07	27368128.12	27368128.17	0.1851	0.1693
Venus	70219-08-31 23:03 G	27368265.36	27368265.46	27368265.57	0.1888	0.1523
Mercury	70220-02-29 21:07 G	27368447.25	27368447.38	27368447.50	0.1668	0.0848
Mercury	70230-08-12 21:22 G	27372264.33	27372264.39	27372264.46	0.1868	0.1617
Mercury	70240-01-03 02:53 G	27375694.50	27375694.62	27375694.74	0.1863	0.0506
Mercury	70240-11-17 09:51 G	27376013.80	27376013.91	27376014.03	0.1659	0.0977
Venus	70248-11-21 07:12 G	27378939.64	27378939.80	27378939.95	0.1640	0.0731
Mercury	70249-05-25 08:39 G	27379124.74	27379124.86	27379124.98	0.1857	0.0559
Mercury	70250-04-09 15:51 G	27379444.01	27379444.16	27379444.30	0.1663	0.0145
Mercury	70258-10-15 14:39 G	27382555.05	27382555.11	27382555.17	0.1851	0.1591
Earth	70259-05-23 02:53 G	27382774.50	27382774.62	27382774.74	0.1790	0.1375
Moon	70259-05-23 05:17 G	27382774.64	27382774.72	27382774.80	0.1790	0.1571 *
Mercury	70259-08-30 21:36 G	27382874.27	27382874.40	27382874.53	0.1668	0.0710
Mercury	70269-01-20 02:53 G	27386304.58	27386304.62	27386304.65	0.1672	0.1608
Mercury	70270-02-10 21:22 G	27386691.35	27386691.39	27386691.44	0.1868	0.1734
Mercury	70279-07-04 03:07 G	27390121.51	27390121.63	27390121.75	0.1863	0.0638
Mercury	70280-05-18 10:05 G	27390440.82	27390440.92	27390441.03	0.1659	0.1098
Moon	70284-11-19 23:17 G	27392087.28	27392087.47	27392087.66	0.1737	0.0488

Earth	70284-11-20 06:29 G	27392087.59	27392087.77	27392087.94	0.1737	0.0703	*
Mercury	70288-11-23 08:39 G	27393551.74	27393551.86	27393551.99	0.1857	0.0443	
Mercury	70289-10-08 16:05 G	27393871.03	27393871.17	27393871.32	0.1663	0.0278	
Mercury	70298-04-15 14:53 G	27396982.05	27396982.12	27396982.20	0.1851	0.1458	
Mercury	70299-02-28 21:51 G	27397301.27	27397301.41	27397301.55	0.1668	0.0586	
Mercury	70308-07-22 03:07 G	27400731.57	27400731.63	27400731.70	0.1672	0.1474	
Mercury	70309-08-12 21:36 G	27401118.40	27401118.40	27401118.41	0.1868	0.1864	
Venus	70314-09-19 18:58 G	27402982.12	27402982.29	27402982.46	0.1639	0.0480	
Mercury	70319-01-03 02:53 G	27404548.51	27404548.62	27404548.74	0.1862	0.0750	
Mercury	70319-11-18 10:34 G	27404867.85	27404867.94	27404868.04	0.1659	0.1226	
Mercury	70328-05-25 08:53 G	27407978.75	27407978.87	27407979.00	0.1857	0.0314	
Mercury	70329-04-09 16:34 G	27408298.05	27408298.19	27408298.33	0.1663	0.0401	
Mercury	70337-10-15 14:53 G	27411409.04	27411409.12	27411409.21	0.1851	0.1339	
Mercury	70338-08-30 22:19 G	27411728.29	27411728.43	27411728.57	0.1668	0.0460	
Mercury	70348-01-21 03:36 G	27415158.56	27415158.65	27415158.74	0.1672	0.1339	
Mercury	70358-07-04 03:07 G	27418975.52	27418975.63	27418975.75	0.1862	0.0878	
Mercury	70359-05-19 10:48 G	27419294.87	27419294.95	27419295.04	0.1659	0.1344	
Mercury	70367-11-24 08:53 G	27422405.74	27422405.87	27422406.00	0.1857	0.0198	
Mercury	70368-10-08 16:48 G	27422725.07	27422725.20	27422725.34	0.1663	0.0524	
Mercury	70377-04-15 14:53 G	27425836.03	27425836.12	27425836.22	0.1851	0.1228	
Mercury	70378-02-28 22:48 G	27426155.30	27426155.45	27426155.59	0.1668	0.0322	
Venus	70380-07-17 06:58 G	27427024.62	27427024.79	27427024.96	0.1637	0.0244	
Venus	70383-04-26 02:39 G	27428037.47	27428037.61	27428037.74	0.1885	0.1158	
Mercury	70387-07-22 03:51 G	27429585.57	27429585.66	27429585.77	0.1672	0.1211	
Mercury	70398-01-02 03:22 G	27433402.53	27433402.64	27433402.75	0.1862	0.1009	
Mercury	70398-11-17 11:17 G	27433721.90	27433721.97	27433722.03	0.1659	0.1465	
Mercury	70407-05-25 09:07 G	27436832.75	27436832.88	27436833.01	0.1857	0.0082	
Mercury	70408-04-08 17:17 G	27437152.09	27437152.22	27437152.35	0.1663	0.0651	
Mercury	70416-10-14 15:07 G	27440263.03	27440263.13	27440263.23	0.1851	0.1103	
Mercury	70417-08-29 23:03 G	27440582.31	27440582.46	27440582.60	0.1668	0.0208	

Mercury	70427-01-20 04:19 G	27444012.57	27444012.68	27444012.80	0.1672	0.1074
Mercury	70437-07-03 03:22 G	27447829.54	27447829.64	27447829.74	0.1862	0.1116
Mercury	70438-05-18 11:31 G	27448148.95	27448148.98	27448149.02	0.1659	0.1592
Venus	70446-05-14 18:29 G	27451067.09	27451067.27	27451067.44	0.1635	0.0028
Mercury	70446-11-23 09:07 G	27451259.75	27451259.88	27451260.01	0.1857	0.0053
Mercury	70447-10-08 17:46 G	27451579.11	27451579.24	27451579.36	0.1663	0.0775
Venus	70449-02-20 05:46 G	27452079.57	27452079.74	27452079.91	0.1888	0.0403
Mercury	70456-04-14 15:22 G	27454690.03	27454690.14	27454690.25	0.1851	0.0974
Mercury	70457-02-27 23:17 G	27455009.33	27455009.47	27455009.62	0.1668	0.0085
Mercury	70466-07-21 04:48 G	27458439.58	27458439.70	27458439.82	0.1672	0.0943
Mercury	70477-01-01 03:36 G	27462256.55	27462256.65	27462256.74	0.1862	0.1245
Mercury	70486-05-24 09:07 G	27465686.76	27465686.88	27465687.01	0.1857	0.0185
Mercury	70487-04-08 18:00 G	27466006.13	27466006.25	27466006.37	0.1663	0.0897
Mercury	70495-10-14 15:07 G	27469117.02	27469117.13	27469117.24	0.1851	0.0872
Mercury	70496-08-28 23:46 G	27469436.35	27469436.49	27469436.64	0.1668	0.0074
Mercury	70505-03-06 21:51 G	27472547.41	27472547.41	27472547.42	0.1846	0.1839
Mercury	70506-01-20 05:17 G	27472866.59	27472866.72	27472866.84	0.1672	0.0813
Venus	70512-03-12 06:43 G	27475109.61	27475109.78	27475109.96	0.1634	0.0232
Venus	70514-12-19 09:36 G	27476121.72	27476121.90	27476122.07	0.1890	0.0332
Mercury	70516-07-03 03:51 G	27476683.57	27476683.66	27476683.74	0.1862	0.1377
Mercury	70525-11-23 09:22 G	27480113.76	27480113.89	27480114.01	0.1857	0.0291
Mercury	70526-10-08 18:29 G	27480433.15	27480433.27	27480433.38	0.1663	0.1024
Mercury	70535-04-15 15:22 G	27483544.03	27483544.14	27483544.26	0.1851	0.0740
Mercury	70536-02-29 00:00 G	27483863.36	27483863.50	27483863.65	0.1668	0.0192
Earth	70543-05-25 10:05 G	27486505.82	27486505.92	27486506.03	0.1798	0.1488
Moon	70543-05-25 14:53 G	27486506.03	27486506.12	27486506.21	0.1798	0.1605 *
Mercury	70544-09-04 21:51 G	27486974.37	27486974.41	27486974.45	0.1845	0.1734
Mercury	70545-07-21 05:31 G	27487293.60	27487293.73	27487293.87	0.1672	0.0682
Mercury	70554-12-11 10:48 G	27490723.90	27490723.95	27490724.00	0.1677	0.1574
Mercury	70556-01-02 03:36 G	27491110.58	27491110.65	27491110.73	0.1862	0.1483

Mercury	70565-05-24 09:36 G	27494540.77	27494540.90	27494541.02	0.1857	0.0421
Mercury	70566-04-08 18:43 G	27494860.18	27494860.28	27494860.38	0.1663	0.1145
Earth	70568-11-22 18:58 G	27495819.13	27495819.29	27495819.45	0.1730	0.0966
Moon	70568-11-22 20:24 G	27495819.21	27495819.35	27495819.49	0.1730	0.1104 *
Mercury	70574-10-14 15:36 G	27497971.03	27497971.15	27497971.27	0.1851	0.0623
Mercury	70575-08-30 00:29 G	27498290.38	27498290.52	27498290.66	0.1668	0.0311
Venus	70578-01-07 18:29 G	27499152.11	27499152.27	27499152.44	0.1632	0.0469
Venus	70580-10-15 12:29 G	27500163.88	27500164.02	27500164.16	0.1893	0.1102
Mercury	70584-03-05 21:51 G	27501401.35	27501401.41	27501401.47	0.1846	0.1612
Mercury	70585-01-19 06:00 G	27501720.61	27501720.75	27501720.89	0.1672	0.0550
Mercury	70594-06-11 11:03 G	27505150.89	27505150.96	27505151.03	0.1677	0.1449
Mercury	70595-07-03 03:51 G	27505537.60	27505537.66	27505537.72	0.1862	0.1613
Mercury	70604-11-23 09:22 G	27508967.77	27508967.89	27508968.02	0.1857	0.0534
Mercury	70605-10-08 18:58 G	27509287.20	27509287.29	27509287.39	0.1663	0.1266
Mercury	70614-04-15 15:22 G	27512398.02	27512398.14	27512398.27	0.1851	0.0514
Mercury	70615-03-01 00:58 G	27512717.40	27512717.54	27512717.68	0.1667	0.0446
Mercury	70623-09-05 22:05 G	27515828.35	27515828.42	27515828.49	0.1846	0.1489
Mercury	70624-07-21 06:29 G	27516147.63	27516147.77	27516147.91	0.1672	0.0425
Mercury	70633-12-11 11:31 G	27519577.89	27519577.98	27519578.07	0.1677	0.1311
Mercury	70635-01-02 04:05 G	27519964.63	27519964.67	27519964.71	0.1862	0.1741
Venus	70643-11-06 06:58 G	27523194.63	27523194.79	27523194.95	0.1631	0.0692
Mercury	70644-05-24 09:36 G	27523394.78	27523394.90	27523395.02	0.1857	0.0654
Mercury	70645-04-08 19:27 G	27523714.23	27523714.31	27523714.39	0.1663	0.1389
Venus	70646-08-13 16:05 G	27524206.14	27524206.17	27524206.21	0.1894	0.1843
Mercury	70653-10-14 15:36 G	27526825.03	27526825.15	27526825.28	0.1851	0.0386
Mercury	70654-08-30 01:12 G	27527144.42	27527144.55	27527144.69	0.1668	0.0561
Mercury	70663-03-06 22:05 G	27530255.33	27530255.42	27530255.50	0.1845	0.1379
Mercury	70664-01-20 06:43 G	27530574.64	27530574.78	27530574.93	0.1672	0.0294
Mercury	70673-06-11 12:00 G	27534004.90	27534005.00	27534005.10	0.1677	0.1177
Mercury	70674-07-03 04:05 G	27534391.65	27534391.67	27534391.68	0.1862	0.1848

Venus	70675-11-05 01:27 G	27534881.49	27534881.56	27534881.63	0.1635	0.1485
Mercury	70683-11-23 09:51 G	27537821.79	27537821.91	27537822.02	0.1857	0.0777
Mercury	70684-10-07 19:41 G	27538141.27	27538141.32	27538141.38	0.1663	0.1509
Mercury	70693-04-14 15:51 G	27541252.03	27541252.16	27541252.29	0.1851	0.0258
Mercury	70694-02-28 01:41 G	27541571.44	27541571.57	27541571.70	0.1668	0.0690
Mercury	70702-09-05 22:05 G	27544682.33	27544682.42	27544682.51	0.1845	0.1263
Mercury	70703-07-22 07:12 G	27545001.65	27545001.80	27545001.94	0.1672	0.0164
Venus	70709-09-03 19:12 G	27547237.15	27547237.30	27547237.44	0.1629	0.0918
Mercury	70712-12-11 12:15 G	27548431.90	27548432.01	27548432.13	0.1677	0.1052
Mercury	70723-05-25 09:51 G	27552248.80	27552248.91	27552249.02	0.1857	0.0895
Mercury	70724-04-08 20:10 G	27552568.31	27552568.34	27552568.36	0.1663	0.1630
Mercury	70732-10-14 15:36 G	27555679.03	27555679.15	27555679.28	0.1851	0.0163
Mercury	70733-08-30 02:10 G	27555998.46	27555998.59	27555998.71	0.1667	0.0819
Venus	70741-09-02 13:27 G	27558923.95	27558924.06	27558924.17	0.1634	0.1244
Mercury	70742-03-06 22:19 G	27559109.33	27559109.43	27559109.53	0.1846	0.1135
Mercury	70743-01-20 07:27 G	27559428.67	27559428.81	27559428.96	0.1672	0.0066
Venus	70744-06-10 17:03 G	27559936.13	27559936.21	27559936.30	0.1890	0.1649
Mercury	70752-06-11 12:43 G	27562858.91	27562859.03	27562859.15	0.1677	0.0917
Mercury	70762-11-23 09:51 G	27566675.80	27566675.91	27566676.02	0.1857	0.1010
Mercury	70772-04-14 15:51 G	27570106.04	27570106.16	27570106.29	0.1851	0.0074
Mercury	70773-02-28 02:24 G	27570425.48	27570425.60	27570425.72	0.1668	0.0934
Venus	70775-07-02 07:12 G	27571279.68	27571279.80	27571279.92	0.1628	0.1147
Mercury	70781-09-04 22:05 G	27573536.32	27573536.42	27573536.53	0.1845	0.1033
Mercury	70782-07-21 07:55 G	27573855.69	27573855.83	27573855.98	0.1672	0.0097
Mercury	70791-12-11 13:12 G	27577285.92	27577286.05	27577286.18	0.1677	0.0782
Mercury	70802-05-24 10:05 G	27581102.82	27581102.92	27581103.02	0.1857	0.1140
Venus	70807-07-01 01:27 G	27582966.42	27582966.56	27582966.70	0.1632	0.1008
Venus	70810-04-07 19:55 G	27583978.17	27583978.33	27583978.48	0.1893	0.0863
Mercury	70811-10-14 16:05 G	27584533.04	27584533.17	27584533.29	0.1851	0.0105
Mercury	70812-08-29 02:39 G	27584852.50	27584852.61	27584852.72	0.1668	0.1058

Mercury	70821-03-05 22:19 G	27587963.32	27587963.43	27587963.54	0.1845	0.0909
Mercury	70822-01-19 08:24 G	27588282.70	27588282.85	27588282.99	0.1672	0.0220
Earth	70827-05-27 15:36 G	27590237.10	27590237.15	27590237.20	0.1806	0.1725
Mercury	70831-06-11 13:27 G	27591712.93	27591713.06	27591713.20	0.1677	0.0661
Mercury	70840-10-31 18:29 G	27595143.22	27595143.27	27595143.33	0.1682	0.1555
Venus	70841-04-28 19:12 G	27595322.21	27595322.30	27595322.39	0.1627	0.1374
Mercury	70841-11-22 10:05 G	27595529.82	27595529.92	27595530.01	0.1857	0.1247
Mercury	70851-04-14 16:05 G	27598960.04	27598960.17	27598960.29	0.1851	0.0207
Mercury	70852-02-28 03:07 G	27599279.54	27599279.63	27599279.73	0.1667	0.1190
Earth	70852-11-25 08:10 G	27599550.71	27599550.84	27599550.97	0.1722	0.1259
Moon	70852-11-25 15:22 G	27599551.06	27599551.14	27599551.22	0.1723	0.1576
Mercury	70860-09-03 22:19 G	27602390.32	27602390.43	27602390.55	0.1845	0.0792
Mercury	70861-07-20 08:39 G	27602709.72	27602709.86	27602710.00	0.1672	0.0342
Mercury	70870-01-25 05:03 G	27605820.67	27605820.71	27605820.74	0.1839	0.1754
Mercury	70870-12-10 13:55 G	27606139.94	27606140.08	27606140.22	0.1677	0.0527
Venus	70873-04-27 13:12 G	27607008.89	27607009.05	27607009.20	0.1631	0.0765
Venus	70876-02-02 22:48 G	27608020.28	27608020.45	27608020.63	0.1895	0.0091
Mercury	70880-05-01 18:58 G	27609570.21	27609570.29	27609570.36	0.1682	0.1433
Mercury	70881-05-23 10:05 G	27609956.84	27609956.92	27609957.01	0.1857	0.1373
Mercury	70890-10-13 16:05 G	27613387.05	27613387.17	27613387.30	0.1851	0.0327
Mercury	70891-08-29 03:22 G	27613706.55	27613706.64	27613706.73	0.1668	0.1300
Mercury	70900-03-05 22:19 G	27616817.31	27616817.43	27616817.55	0.1845	0.0683
Mercury	70901-01-19 09:07 G	27617136.74	27617136.88	27617137.02	0.1672	0.0472
Venus	70907-02-25 07:41 G	27619364.79	27619364.82	27619364.84	0.1626	0.1598
Mercury	70909-07-27 05:03 G	27620247.66	27620247.71	27620247.76	0.1840	0.1642
Mercury	70910-06-11 14:24 G	27620566.96	27620567.10	27620567.24	0.1677	0.0398
Mercury	70919-11-01 19:27 G	27623997.21	27623997.31	27623997.40	0.1682	0.1297
Mercury	70920-11-22 10:19 G	27624383.86	27624383.93	27624384.01	0.1857	0.1494
Mercury	70930-04-14 16:19 G	27627814.05	27627814.18	27627814.30	0.1851	0.0448
Mercury	70931-02-28 03:51 G	27628133.59	27628133.66	27628133.73	0.1668	0.1424

Venus	70939-02-24 01:27 G	27631051.40	27631051.56	27631051.73	0.1629	0.0545
Mercury	70939-09-04 22:34 G	27631244.32	27631244.44	27631244.56	0.1845	0.0568
Mercury	70940-07-20 09:22 G	27631563.76	27631563.89	27631564.03	0.1672	0.0592
Venus	70941-12-01 01:55 G	27632062.42	27632062.58	27632062.75	0.1897	0.0671
Mercury	70949-01-25 05:03 G	27634674.64	27634674.71	27634674.78	0.1839	0.1526
Mercury	70949-12-10 14:39 G	27634993.97	27634994.11	27634994.26	0.1677	0.0276
Mercury	70959-05-02 19:55 G	27638424.22	27638424.33	27638424.43	0.1682	0.1159
Mercury	70960-05-23 10:19 G	27638810.87	27638810.93	27638810.99	0.1857	0.1608
Mercury	70969-10-13 16:19 G	27642241.05	27642241.18	27642241.30	0.1851	0.0554
Mercury	70970-08-29 04:19 G	27642560.63	27642560.68	27642560.73	0.1667	0.1548
Mercury	70979-03-05 22:34 G	27645671.32	27645671.44	27645671.57	0.1845	0.0444
Mercury	70980-01-19 09:51 G	27645990.78	27645990.91	27645991.04	0.1672	0.0715
Mercury	70988-07-26 05:03 G	27649101.64	27649101.71	27649101.79	0.1839	0.1414
Mercury	70989-06-10 15:07 G	27649420.99	27649421.13	27649421.28	0.1677	0.0142
Mercury	70998-10-31 20:10 G	27652851.22	27652851.34	27652851.45	0.1682	0.1036
Mercury	70999-11-22 10:19 G	27653237.89	27653237.93	27653237.98	0.1857	0.1722

72ND MILLENNIUM CE

This is a list of transits visible from Mars in the 72nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	71004-12-22 13:27 G		27655093.89	27655094.06	27655094.23	0.1628	0.0309	
Venus	71007-09-29 04:34 G		27656104.59	27656104.69	27656104.80	0.1899	0.1464	
Mercury	71009-04-14 16:34 G		27656668.07	27656668.19	27656668.30	0.1851	0.0682	

Mercury	71010-02-28 04:34 G	27656987.68	27656987.69	27656987.70	0.1668	0.1661
Mercury	71018-09-04 22:34 G	27660098.31	27660098.44	27660098.56	0.1845	0.0340
Mercury	71019-07-21 10:19 G	27660417.80	27660417.93	27660418.05	0.1672	0.0844
Mercury	71028-01-26 05:17 G	27663528.63	27663528.72	27663528.81	0.1840	0.1297
Mercury	71028-12-10 15:36 G	27663848.00	27663848.15	27663848.30	0.1677	0.0018
Mercury	71038-05-02 20:39 G	27667278.23	27667278.36	27667278.48	0.1682	0.0907
Mercury	71039-05-24 10:48 G	27667664.94	27667664.95	27667664.95	0.1857	0.1852
Mercury	71048-10-13 16:34 G	27671095.07	27671095.19	27671095.30	0.1851	0.0795
Earth	71057-11-25 10:34 G	27674424.85	27674424.94	27674425.04	0.1711	0.1466
Mercury	71058-03-05 22:48 G	27674525.32	27674525.45	27674525.57	0.1845	0.0224
Mercury	71059-01-19 10:34 G	27674844.82	27674844.94	27674845.06	0.1672	0.0962
Mercury	71067-07-27 05:17 G	27677955.62	27677955.72	27677955.81	0.1839	0.1188
Mercury	71068-06-10 15:51 G	27678275.02	27678275.16	27678275.31	0.1677	0.0108
Venus	71070-10-20 01:41 G	27679136.40	27679136.57	27679136.75	0.1627	0.0094
Mercury	71077-10-31 21:07 G	27681705.25	27681705.38	27681705.51	0.1682	0.0766
Mercury	71088-04-13 16:34 G	27685522.08	27685522.19	27685522.30	0.1851	0.0906
Mercury	71097-09-03 22:48 G	27688952.32	27688952.45	27688952.58	0.1845	0.0098
Mercury	71098-07-20 10:48 G	27689271.84	27689271.95	27689272.06	0.1672	0.1083
Mercury	71107-01-26 05:17 G	27692382.62	27692382.72	27692382.82	0.1839	0.1073
Mercury	71107-12-11 16:19 G	27692702.03	27692702.18	27692702.32	0.1677	0.0236
Mercury	71117-05-02 21:22 G	27696132.25	27696132.39	27696132.52	0.1682	0.0648
Mercury	71126-09-23 01:55 G	27699562.53	27699562.58	27699562.64	0.1687	0.1561
Mercury	71127-10-14 16:34 G	27699949.09	27699949.19	27699949.30	0.1851	0.1023
Venus	71136-08-17 14:10 G	27703178.91	27703179.09	27703179.26	0.1625	0.0144
Moon	71136-11-28 15:36 G	27703282.09	27703282.15	27703282.22	0.1715	0.1618
Earth	71136-11-28 21:51 G	27703282.33	27703282.41	27703282.49	0.1715	0.1555
Mercury	71137-03-05 22:48 G	27703379.32	27703379.45	27703379.57	0.1845	0.0038
Mercury	71138-01-19 11:17 G	27703698.87	27703698.97	27703699.07	0.1672	0.1209
Mercury	71146-07-27 05:31 G	27706809.62	27706809.73	27706809.83	0.1840	0.0961
Mercury	71147-06-11 16:48 G	27707129.05	27707129.20	27707129.34	0.1677	0.0364

Mercury	71156-10-31 21:51 G	27710559.27	27710559.41	27710559.55	0.1682	0.0517
Mercury	71166-03-24 02:24 G	27713989.52	27713989.60	27713989.68	0.1687	0.1430
Mercury	71167-04-14 16:48 G	27714376.10	27714376.20	27714376.30	0.1851	0.1144
Venus	71171-05-24 09:22 G	27715876.77	27715876.89	27715877.02	0.1897	0.1304
Mercury	71176-09-03 22:48 G	27717806.32	27717806.45	27717806.58	0.1845	0.0126
Mercury	71177-07-20 11:31 G	27718125.90	27718125.98	27718126.07	0.1672	0.1324
Mercury	71186-01-25 05:31 G	27721236.61	27721236.73	27721236.84	0.1839	0.0849
Mercury	71186-12-10 17:03 G	27721556.07	27721556.21	27721556.35	0.1677	0.0484
Moon	71190-06-02 04:48 G	27722825.61	27722825.70	27722825.78	0.1810	0.1587
Earth	71190-06-02 11:46 G	27722825.94	27722825.99	27722826.05	0.1810	0.1732
Mercury	71195-06-17 12:15 G	27724666.98	27724667.01	27724667.03	0.1833	0.1791
Mercury	71196-05-01 22:19 G	27724986.28	27724986.43	27724986.57	0.1682	0.0384
Venus	71202-06-15 02:10 G	27727221.42	27727221.59	27727221.76	0.1624	0.0370
Mercury	71205-09-22 02:39 G	27728416.52	27728416.61	27728416.71	0.1687	0.1302
Mercury	71206-10-13 16:48 G	27728803.10	27728803.20	27728803.29	0.1851	0.1249
Mercury	71216-03-04 23:03 G	27732233.33	27732233.46	27732233.59	0.1845	0.0248
Mercury	71217-01-18 12:00 G	27732552.93	27732553.00	27732553.07	0.1672	0.1445
Mercury	71225-07-26 05:31 G	27735663.61	27735663.73	27735663.84	0.1839	0.0738
Mercury	71226-06-10 17:31 G	27735983.09	27735983.23	27735983.36	0.1677	0.0610
Mercury	71234-12-16 12:15 G	27739093.96	27739094.01	27739094.06	0.1833	0.1674
Mercury	71235-10-31 22:34 G	27739413.29	27739413.44	27739413.58	0.1682	0.0267
Venus	71237-03-20 11:31 G	27739918.81	27739918.98	27739919.15	0.1899	0.0489
Mercury	71245-03-23 03:07 G	27742843.53	27742843.63	27742843.74	0.1687	0.1167
Mercury	71246-04-13 16:48 G	27743230.12	27743230.20	27743230.29	0.1851	0.1374
Mercury	71255-09-03 22:48 G	27746660.33	27746660.45	27746660.58	0.1845	0.0346
Mercury	71256-07-19 12:29 G	27746979.97	27746980.02	27746980.06	0.1672	0.1569
Mercury	71265-01-24 05:31 G	27750090.61	27750090.73	27750090.85	0.1839	0.0621
Mercury	71265-12-09 17:46 G	27750410.11	27750410.24	27750410.37	0.1677	0.0731
Venus	71268-04-11 14:24 G	27751263.94	27751264.10	27751264.26	0.1623	0.0589
Mercury	71274-06-16 12:15 G	27753520.95	27753521.01	27753521.08	0.1833	0.1559

Mercury	71275-05-01 22:48 G	27753840.31	27753840.45	27753840.60	0.1682	0.0145
Mercury	71284-09-21 03:36 G	27757270.53	27757270.65	27757270.77	0.1687	0.1038
Mercury	71285-10-12 16:48 G	27757657.13	27757657.20	27757657.28	0.1851	0.1485
Mercury	71295-03-04 23:03 G	27761087.34	27761087.46	27761087.59	0.1845	0.0468
Venus	71300-04-11 07:55 G	27762950.77	27762950.83	27762950.89	0.1626	0.1523
Venus	71303-01-16 14:10 G	27763960.92	27763961.09	27763961.27	0.1901	0.0306
Mercury	71304-07-26 05:31 G	27764517.61	27764517.73	27764517.85	0.1839	0.0514
Mercury	71305-06-10 18:15 G	27764837.13	27764837.26	27764837.38	0.1677	0.0853
Mercury	71313-12-16 12:15 G	27767947.94	27767948.01	27767948.08	0.1833	0.1458
Mercury	71314-10-31 23:31 G	27768267.33	27768267.48	27768267.62	0.1682	0.0045
Mercury	71324-03-23 04:05 G	27771697.54	27771697.67	27771697.79	0.1687	0.0910
Mercury	71325-04-13 17:03 G	27772084.15	27772084.21	27772084.27	0.1851	0.1598
Venus	71334-02-08 02:39 G	27775306.46	27775306.61	27775306.76	0.1622	0.0814
Mercury	71334-09-03 23:17 G	27775514.34	27775514.47	27775514.59	0.1845	0.0586
Earth	71341-11-28 02:10 G	27778156.44	27778156.59	27778156.74	0.1704	0.1055
Moon	71341-11-28 08:39 G	27778156.72	27778156.86	27778156.99	0.1705	0.1132 *
Mercury	71344-01-25 05:31 G	27778944.61	27778944.73	27778944.86	0.1839	0.0404
Mercury	71344-12-09 18:29 G	27779264.16	27779264.27	27779264.39	0.1677	0.0978
Mercury	71353-06-16 12:29 G	27782374.93	27782375.02	27782375.10	0.1833	0.1341
Mercury	71354-05-01 23:31 G	27782694.34	27782694.48	27782694.63	0.1682	0.0126
Mercury	71363-09-22 04:19 G	27786124.55	27786124.68	27786124.82	0.1687	0.0779
Mercury	71364-10-12 17:03 G	27786511.17	27786511.21	27786511.26	0.1851	0.1710
Venus	71366-02-06 20:10 G	27786993.24	27786993.34	27786993.44	0.1625	0.1303
Venus	71368-11-12 17:03 G	27788003.07	27788003.21	27788003.35	0.1902	0.1086
Mercury	71374-03-04 23:03 G	27789941.34	27789941.46	27789941.58	0.1845	0.0687
Mercury	71383-07-26 05:46 G	27793371.61	27793371.74	27793371.86	0.1839	0.0284
Mercury	71384-06-09 18:58 G	27793691.18	27793691.29	27793691.40	0.1677	0.1096
Mercury	71392-12-15 12:29 G	27796801.93	27796802.02	27796802.11	0.1833	0.1230
Mercury	71393-10-31 00:00 G	27797121.36	27797121.50	27797121.65	0.1682	0.0245
Venus	71399-12-06 14:53 G	27799348.99	27799349.12	27799349.25	0.1621	0.1029

Mercury	71403-03-24 04:48 G	27800551.56	27800551.70	27800551.84	0.1687	0.0652
Mercury	71404-04-13 17:17 G	27800938.20	27800938.22	27800938.23	0.1851	0.1830
Mercury	71412-08-13 09:07 G	27803981.83	27803981.88	27803981.93	0.1693	0.1580
Mercury	71413-09-03 23:17 G	27804368.35	27804368.47	27804368.58	0.1845	0.0804
Mercury	71423-01-25 05:46 G	27807798.61	27807798.74	27807798.86	0.1839	0.0182
Mercury	71423-12-10 19:12 G	27808118.21	27808118.30	27808118.40	0.1677	0.1218
Venus	71431-12-06 08:10 G	27811035.71	27811035.84	27811035.97	0.1624	0.1070
Mercury	71432-06-16 12:29 G	27811228.92	27811229.02	27811229.11	0.1833	0.1128
Mercury	71433-05-02 00:29 G	27811548.38	27811548.52	27811548.66	0.1682	0.0371
Venus	71434-09-10 19:27 G	27812045.30	27812045.31	27812045.32	0.1904	0.1898
Mercury	71442-09-22 05:17 G	27814978.58	27814978.72	27814978.86	0.1687	0.0525
Mercury	71452-02-12 09:36 G	27818408.83	27818408.90	27818408.98	0.1692	0.1443
Mercury	71453-03-04 23:31 G	27818795.37	27818795.48	27818795.59	0.1845	0.0927
Mercury	71462-07-26 05:46 G	27822225.61	27822225.74	27822225.87	0.1839	0.0067
Mercury	71463-06-10 19:41 G	27822545.23	27822545.32	27822545.40	0.1677	0.1337
Venus	71465-10-04 03:07 G	27823391.52	27823391.63	27823391.74	0.1620	0.1253
Mercury	71471-12-16 12:29 G	27825655.92	27825656.02	27825656.12	0.1833	0.1013
Mercury	71472-10-31 00:43 G	27825975.39	27825975.53	27825975.67	0.1682	0.0487
Earth	71474-06-04 12:29 G	27826556.89	27826557.02	27826557.16	0.1819	0.1299
Moon	71474-06-04 19:12 G	27826557.19	27826557.30	27826557.42	0.1818	0.1421
Mercury	71482-03-23 05:46 G	27829405.59	27829405.74	27829405.88	0.1687	0.0392
Mercury	71491-08-13 10:05 G	27832835.83	27832835.92	27832836.01	0.1692	0.1313
Mercury	71492-09-02 23:17 G	27833222.36	27833222.47	27833222.57	0.1845	0.1020
Venus	71497-10-02 20:39 G	27835078.21	27835078.36	27835078.51	0.1623	0.0851
Mercury	71502-01-25 06:00 G	27836652.62	27836652.75	27836652.87	0.1839	0.0073
Mercury	71502-12-10 19:55 G	27836972.26	27836972.33	27836972.40	0.1677	0.1456
Mercury	71511-06-17 12:29 G	27840082.91	27840083.02	27840083.13	0.1833	0.0899
Mercury	71512-05-02 01:12 G	27840402.41	27840402.55	27840402.69	0.1682	0.0613
Mercury	71520-11-06 19:27 G	27843513.30	27843513.31	27843513.33	0.1827	0.1812
Mercury	71521-09-22 06:00 G	27843832.60	27843832.75	27843832.90	0.1687	0.0270

Mercury	71531-02-12 10:34 G	27847262.83	27847262.94	27847263.04	0.1693	0.1186
Venus	71531-08-02 15:36 G	27847434.08	27847434.15	27847434.23	0.1619	0.1460
Mercury	71532-03-04 23:31 G	27847649.38	27847649.48	27847649.58	0.1845	0.1143
Venus	71532-07-08 21:07 G	27847775.30	27847775.38	27847775.47	0.1901	0.1644
Mercury	71541-07-26 05:46 G	27851079.62	27851079.74	27851079.87	0.1839	0.0161
Mercury	71542-06-10 20:24 G	27851399.30	27851399.35	27851399.40	0.1677	0.1576
Mercury	71550-12-16 12:29 G	27854509.91	27854510.02	27854510.13	0.1833	0.0799
Mercury	71551-11-01 01:41 G	27854829.44	27854829.57	27854829.70	0.1682	0.0741
Mercury	71560-05-07 19:41 G	27857940.28	27857940.32	27857940.36	0.1827	0.1693
Mercury	71561-03-23 06:29 G	27858259.62	27858259.77	27858259.91	0.1687	0.0146
Venus	71563-08-01 08:53 G	27859120.71	27859120.87	27859121.03	0.1622	0.0627
Mercury	71570-08-13 10:48 G	27861689.84	27861689.95	27861690.07	0.1692	0.1054
Mercury	71571-09-03 23:31 G	27862076.39	27862076.48	27862076.57	0.1845	0.1258
Mercury	71581-01-24 06:00 G	27865506.62	27865506.75	27865506.87	0.1839	0.0269
Mercury	71590-06-16 12:43 G	27868936.91	27868937.03	27868937.14	0.1833	0.0684
Mercury	71591-05-02 01:55 G	27869256.45	27869256.58	27869256.71	0.1682	0.0854
Venus	71598-05-06 00:15 G	27871817.36	27871817.51	27871817.67	0.1903	0.0884
Mercury	71599-11-06 19:27 G	27872367.26	27872367.31	27872367.37	0.1826	0.1600
Mercury	71600-09-21 06:58 G	27872686.64	27872686.79	27872686.93	0.1687	0.0048
Mercury	71610-02-11 11:17 G	27876116.85	27876116.97	27876117.10	0.1692	0.0922
Mercury	71611-03-04 23:31 G	27876503.40	27876503.48	27876503.57	0.1845	0.1360
Mercury	71620-07-25 06:00 G	27879933.63	27879933.75	27879933.88	0.1839	0.0385
Earth	71625-11-30 18:43 G	27881888.10	27881888.28	27881888.45	0.1698	0.0615
Moon	71625-11-30 19:27 G	27881888.13	27881888.31	27881888.49	0.1698	0.0809 *
Venus	71629-05-28 21:07 G	27883163.21	27883163.38	27883163.54	0.1621	0.0403
Mercury	71629-12-15 12:43 G	27883363.91	27883364.03	27883364.15	0.1833	0.0575
Mercury	71630-10-31 02:24 G	27883683.48	27883683.60	27883683.72	0.1682	0.0979
Mercury	71639-05-07 19:41 G	27886794.25	27886794.32	27886794.39	0.1827	0.1483
Mercury	71640-03-22 07:12 G	27887113.65	27887113.80	27887113.95	0.1687	0.0110
Mercury	71649-08-12 11:46 G	27890543.86	27890543.99	27890544.12	0.1693	0.0797

Mercury	71650-09-02 23:46 G	27890930.41	27890930.49	27890930.56	0.1845	0.1477
Mercury	71660-01-24 06:00 G	27894360.63	27894360.75	27894360.87	0.1839	0.0485
Venus	71664-03-02 02:24 G	27895859.42	27895859.60	27895859.77	0.1904	0.0074
Mercury	71669-06-15 12:43 G	27897790.91	27897791.03	27897791.15	0.1833	0.0469
Mercury	71670-05-01 02:53 G	27898110.51	27898110.62	27898110.73	0.1682	0.1105
Mercury	71678-11-05 19:41 G	27901221.24	27901221.32	27901221.40	0.1826	0.1373
Mercury	71679-09-21 07:41 G	27901540.67	27901540.82	27901540.96	0.1687	0.0236
Mercury	71689-02-10 12:15 G	27904970.87	27904971.01	27904971.14	0.1692	0.0663
Mercury	71690-03-03 23:46 G	27905357.43	27905357.49	27905357.55	0.1845	0.1596
Venus	71695-03-26 09:36 G	27907205.72	27907205.90	27907206.07	0.1620	0.0187
Mercury	71698-07-03 16:19 G	27908401.13	27908401.18	27908401.22	0.1698	0.1606
Mercury	71699-07-25 06:00 G	27908787.63	27908787.75	27908787.87	0.1839	0.0599
Mercury	71708-12-15 12:43 G	27912217.91	27912218.03	27912218.15	0.1833	0.0356
Mercury	71709-10-31 03:07 G	27912537.53	27912537.63	27912537.73	0.1682	0.1219
Mercury	71718-05-07 19:41 G	27915648.23	27915648.32	27915648.41	0.1826	0.1273
Mercury	71719-03-23 08:10 G	27915967.69	27915967.84	27915967.98	0.1687	0.0366
Mercury	71728-08-12 12:29 G	27919397.88	27919398.02	27919398.16	0.1692	0.0541
Mercury	71729-09-02 23:46 G	27919784.44	27919784.49	27919784.54	0.1845	0.1691
Venus	71729-12-29 04:48 G	27919901.53	27919901.70	27919901.86	0.1906	0.0747
Mercury	71738-01-02 16:48 G	27922828.13	27922828.20	27922828.27	0.1698	0.1467
Mercury	71739-01-24 06:15 G	27923214.64	27923214.76	27923214.88	0.1839	0.0716
Mercury	71748-06-15 12:43 G	27926644.91	27926645.03	27926645.16	0.1833	0.0248
Mercury	71749-05-01 03:22 G	27926964.56	27926964.64	27926964.73	0.1682	0.1342
Mercury	71757-11-05 19:41 G	27930075.23	27930075.32	27930075.42	0.1826	0.1165
Moon	71758-06-06 11:17 G	27930287.77	27930287.97	27930288.17	0.1827	0.0507
Earth	71758-06-06 12:00 G	27930287.83	27930288.00	27930288.18	0.1827	0.0767 *
Mercury	71758-09-21 08:24 G	27930394.71	27930394.85	27930394.99	0.1687	0.0480
Venus	71761-01-21 21:51 G	27931248.23	27931248.41	27931248.58	0.1619	0.0040
Mercury	71768-02-11 12:58 G	27933824.90	27933825.04	27933825.19	0.1693	0.0411
Mercury	71769-03-04 00:00 G	27934211.48	27934211.50	27934211.52	0.1845	0.1814

Mercury	71777-07-03 17:17 G	27937255.13	27937255.22	27937255.31	0.1698	0.1329
Mercury	71778-07-25 06:15 G	27937641.64	27937641.76	27937641.87	0.1839	0.0816
Mercury	71787-12-15 12:43 G	27941071.91	27941072.03	27941072.16	0.1833	0.0148
Mercury	71788-10-30 03:51 G	27941391.59	27941391.66	27941391.73	0.1682	0.1464
Venus	71795-10-26 07:12 G	27943943.70	27943943.80	27943943.90	0.1907	0.1542
Mercury	71797-05-06 19:55 G	27944502.23	27944502.33	27944502.43	0.1826	0.1046
Mercury	71798-03-22 08:53 G	27944821.73	27944821.87	27944822.00	0.1687	0.0606
Mercury	71807-08-13 13:27 G	27948251.91	27948252.06	27948252.21	0.1693	0.0281
Mercury	71817-01-02 17:31 G	27951682.13	27951682.23	27951682.34	0.1698	0.1209
Mercury	71818-01-24 06:15 G	27952068.65	27952068.76	27952068.87	0.1839	0.0929
Venus	71826-11-20 10:19 G	27955290.76	27955290.93	27955291.10	0.1618	0.0244
Mercury	71827-06-16 12:58 G	27955498.91	27955499.04	27955499.16	0.1833	0.0034
Mercury	71828-05-01 04:05 G	27955818.63	27955818.67	27955818.72	0.1682	0.1576
Mercury	71836-11-05 19:41 G	27958929.22	27958929.32	27958929.43	0.1826	0.0954
Mercury	71837-09-21 09:22 G	27959248.76	27959248.89	27959249.02	0.1687	0.0736
Mercury	71847-02-11 13:55 G	27962678.93	27962679.08	27962679.22	0.1692	0.0158
Mercury	71856-07-03 18:00 G	27966109.14	27966109.25	27966109.37	0.1698	0.1076
Mercury	71857-07-25 06:29 G	27966495.66	27966495.77	27966495.87	0.1839	0.1046
Mercury	71866-12-15 12:58 G	27969925.91	27969926.04	27969926.17	0.1833	0.0082
Mercury	71876-05-06 19:55 G	27973356.22	27973356.33	27973356.44	0.1826	0.0836
Mercury	71877-03-22 09:36 G	27973675.77	27973675.90	27973676.03	0.1687	0.0851
Mercury	71885-09-27 03:07 G	27976786.59	27976786.63	27976786.67	0.1820	0.1721
Mercury	71886-08-12 14:10 G	27977105.94	27977106.09	27977106.24	0.1693	0.0044
Venus	71892-09-16 22:48 G	27979333.28	27979333.45	27979333.61	0.1618	0.0460
Mercury	71896-01-02 18:43 G	27980536.15	27980536.28	27980536.40	0.1698	0.0938
Mercury	71897-01-23 06:15 G	27980922.67	27980922.76	27980922.86	0.1839	0.1147
Mercury	71906-06-16 12:58 G	27984352.92	27984353.04	27984353.17	0.1833	0.0196
Moon	71909-12-04 06:15 G	27985619.58	27985619.76	27985619.94	0.1691	0.0501
Earth	71909-12-04 12:58 G	27985619.85	27985620.04	27985620.23	0.1691	0.0109 *
Mercury	71915-11-06 19:55 G	27987783.22	27987783.33	27987783.45	0.1826	0.0728

Mercury	71916-09-21 10:05 G	27988102.80	27988102.92	27988103.04	0.1687	0.0973
Mercury	71925-03-29 03:07 G	27991213.58	27991213.63	27991213.69	0.1820	0.1612
Mercury	71926-02-11 14:39 G	27991532.96	27991533.11	27991533.26	0.1693	0.0101
Mercury	71935-07-04 18:58 G	27994963.16	27994963.29	27994963.42	0.1698	0.0820
Mercury	71936-07-25 06:29 G	27995349.68	27995349.77	27995349.86	0.1839	0.1259
Mercury	71945-12-15 12:58 G	27998779.92	27998780.04	27998780.17	0.1832	0.0303
Mercury	71955-05-07 19:55 G	28002210.21	28002210.33	28002210.45	0.1826	0.0628
Mercury	71956-03-22 10:34 G	28002529.83	28002529.94	28002530.05	0.1687	0.1103
Venus	71958-07-16 11:17 G	28003375.81	28003375.97	28003376.13	0.1617	0.0664
Venus	71959-06-21 11:46 G	28003715.86	28003715.99	28003716.13	0.1905	0.1223
Mercury	71964-09-27 03:22 G	28005640.57	28005640.64	28005640.70	0.1820	0.1505
Mercury	71965-08-12 15:07 G	28005959.98	28005960.13	28005960.27	0.1692	0.0222
Mercury	71975-01-02 19:27 G	28009390.17	28009390.31	28009390.45	0.1698	0.0684
Mercury	71976-01-24 06:43 G	28009776.69	28009776.78	28009776.86	0.1839	0.1377
Mercury	71984-05-24 23:17 G	28012820.43	28012820.47	28012820.51	0.1704	0.1632
Mercury	71985-06-15 13:12 G	28013206.92	28013207.05	28013207.17	0.1832	0.0410
Venus	71990-07-15 04:19 G	28015062.59	28015062.68	28015062.76	0.1619	0.1404
Mercury	71994-11-05 19:55 G	28016637.21	28016637.33	28016637.46	0.1826	0.0523
Mercury	71995-09-21 10:48 G	28016956.85	28016956.95	28016957.05	0.1687	0.1214

73RD MILLENNIUM CE

This is a list of transits visible from Mars in the 73rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mercury	72004-03-28 03:22 G	28020067.56	28020067.64	28020067.71	0.1820	0.1400
Mercury	72005-02-10 15:36 G	28020387.00	28020387.15	28020387.29	0.1693	0.0350
Mercury	72014-07-03 19:55 G	28023817.19	28023817.33	28023817.47	0.1698	0.0550
Mercury	72015-07-25 06:29 G	28024203.70	28024203.77	28024203.85	0.1838	0.1475
Mercury	72023-11-23 23:46 G	28027247.42	28027247.49	28027247.56	0.1704	0.1500
Venus	72024-05-12 23:31 G	28027418.33	28027418.48	28027418.62	0.1616	0.0882
Mercury	72024-12-14 13:12 G	28027633.93	28027634.05	28027634.17	0.1833	0.0514
Venus	72025-04-17 14:53 G	28027757.95	28027758.12	28027758.29	0.1907	0.0447
Mercury	72034-05-06 20:10 G	28031064.22	28031064.34	28031064.46	0.1826	0.0401
Mercury	72035-03-22 11:17 G	28031383.88	28031383.97	28031384.06	0.1687	0.1338
Moon	72042-06-08 03:36 G	28034018.47	28034018.65	28034018.83	0.1836	0.0362
Earth	72042-06-08 10:19 G	28034018.74	28034018.93	28034019.12	0.1836	0.0147 *
Mercury	72043-09-27 03:22 G	28034494.55	28034494.64	28034494.72	0.1820	0.1297
Mercury	72044-08-11 15:51 G	28034814.02	28034814.16	28034814.31	0.1693	0.0474
Mercury	72054-01-01 20:10 G	28038244.20	28038244.34	28038244.49	0.1698	0.0434
Mercury	72055-01-23 06:43 G	28038630.72	28038630.78	28038630.84	0.1839	0.1588
Venus	72056-05-11 16:34 G	28039105.08	28039105.19	28039105.31	0.1618	0.1188
Mercury	72063-05-25 00:15 G	28041674.42	28041674.51	28041674.60	0.1704	0.1363
Mercury	72064-06-14 13:12 G	28042060.94	28042061.05	28042061.17	0.1832	0.0630
Mercury	72073-11-04 19:55 G	28045491.21	28045491.33	28045491.46	0.1826	0.0316
Mercury	72074-09-20 11:46 G	28045810.92	28045810.99	28045811.06	0.1687	0.1464
Mercury	72083-03-28 03:22 G	28048921.55	28048921.64	28048921.74	0.1820	0.1184
Mercury	72084-02-10 16:19 G	28049241.04	28049241.18	28049241.32	0.1692	0.0595
Venus	72090-03-10 12:29 G	28051460.89	28051461.02	28051461.14	0.1616	0.1080
Venus	72091-02-12 16:48 G	28051800.03	28051800.20	28051800.37	0.1908	0.0382
Mercury	72093-07-02 20:39 G	28052671.22	28052671.36	28052671.51	0.1698	0.0303
Mercury	72094-07-24 06:58 G	28053057.74	28053057.79	28053057.83	0.1839	0.1705
Mercury	72102-11-24 00:43 G	28056101.43	28056101.53	28056101.63	0.1704	0.1233
Mercury	72103-12-15 13:27 G	28056487.94	28056488.06	28056488.17	0.1832	0.0735
Mercury	72113-05-06 20:10 G	28059918.22	28059918.34	28059918.47	0.1826	0.0200

Mercury	72114-03-22 12:00 G	28060237.95	28060238.00	28060238.05	0.1687	0.1576
Venus	72122-03-10 05:17 G	28063147.58	28063147.72	28063147.86	0.1617	0.0976
Mercury	72122-09-27 03:22 G	28063348.54	28063348.64	28063348.74	0.1820	0.1086
Mercury	72123-08-12 16:48 G	28063668.06	28063668.20	28063668.33	0.1693	0.0718
Mercury	72133-01-01 21:22 G	28067098.24	28067098.39	28067098.54	0.1698	0.0167
Mercury	72134-01-23 06:43 G	28067484.76	28067484.78	28067484.81	0.1838	0.1804
Mercury	72142-05-25 01:12 G	28070528.44	28070528.55	28070528.66	0.1704	0.1105
Mercury	72143-06-15 13:27 G	28070914.95	28070915.06	28070915.17	0.1833	0.0845
Mercury	72152-11-04 20:24 G	28074345.22	28074345.35	28074345.47	0.1826	0.0097
Venus	72156-01-07 00:43 G	28075503.43	28075503.53	28075503.63	0.1615	0.1288
Venus	72156-12-10 18:58 G	28075842.16	28075842.29	28075842.43	0.1909	0.1192
Mercury	72162-03-28 03:22 G	28077775.54	28077775.64	28077775.75	0.1820	0.0977
Mercury	72163-02-10 17:17 G	28078095.09	28078095.22	28078095.34	0.1693	0.0845
Mercury	72172-07-02 21:36 G	28081525.25	28081525.40	28081525.55	0.1698	0.0055
Mercury	72181-11-23 01:41 G	28084955.45	28084955.57	28084955.69	0.1704	0.0967
Mercury	72182-12-14 13:27 G	28085341.95	28085342.06	28085342.17	0.1832	0.0948
Venus	72188-01-05 17:46 G	28087190.08	28087190.24	28087190.39	0.1617	0.0762
Mercury	72192-05-05 20:10 G	28088772.22	28088772.34	28088772.47	0.1826	0.0052
Earth	72193-12-06 08:24 G	28089351.67	28089351.85	28089352.04	0.1685	0.0445
Moon	72193-12-06 12:15 G	28089351.84	28089352.01	28089352.19	0.1686	0.0311 *
Mercury	72201-09-27 03:36 G	28092202.54	28092202.65	28092202.76	0.1820	0.0867
Mercury	72202-08-12 17:31 G	28092522.11	28092522.23	28092522.35	0.1693	0.0964
Mercury	72211-02-17 11:03 G	28095632.92	28095632.96	28095632.99	0.1813	0.1723
Mercury	72212-01-02 22:05 G	28095952.27	28095952.42	28095952.57	0.1698	0.0082
Mercury	72221-05-25 02:10 G	28099382.46	28099382.59	28099382.72	0.1704	0.0846
Venus	72221-11-04 13:27 G	28099546.00	28099546.06	28099546.13	0.1615	0.1490
Mercury	72222-06-15 13:41 G	28099768.96	28099769.07	28099769.17	0.1832	0.1062
Mercury	72231-11-05 20:24 G	28103199.22	28103199.35	28103199.48	0.1826	0.0127
Mercury	72241-03-28 03:36 G	28106629.53	28106629.65	28106629.76	0.1820	0.0767
Mercury	72242-02-10 18:00 G	28106949.14	28106949.25	28106949.36	0.1693	0.1089

Mercury	72250-08-18 11:03 G	28110059.90	28110059.96	28110060.01	0.1814	0.1627
Mercury	72251-07-03 22:34 G	28110379.29	28110379.44	28110379.59	0.1698	0.0211
Venus	72253-11-03 06:29 G	28111232.60	28111232.77	28111232.93	0.1616	0.0559
Mercury	72260-11-23 02:39 G	28113809.47	28113809.61	28113809.74	0.1704	0.0713
Mercury	72261-12-14 13:41 G	28114195.97	28114196.07	28114196.17	0.1833	0.1167
Mercury	72270-04-15 06:15 G	28117239.73	28117239.76	28117239.79	0.1710	0.1669
Mercury	72271-05-06 20:39 G	28117626.23	28117626.36	28117626.48	0.1826	0.0248
Mercury	72280-09-26 03:36 G	28121056.53	28121056.65	28121056.76	0.1820	0.0662
Mercury	72281-08-11 18:29 G	28121376.17	28121376.27	28121376.37	0.1693	0.1208
Mercury	72290-02-16 11:03 G	28124486.90	28124486.96	28124487.03	0.1813	0.1516
Mercury	72291-01-01 22:48 G	28124806.31	28124806.45	28124806.60	0.1698	0.0332
Mercury	72300-05-25 03:07 G	28128236.49	28128236.63	28128236.77	0.1704	0.0577
Mercury	72301-06-15 13:41 G	28128622.98	28128623.07	28128623.16	0.1832	0.1277
Mercury	72309-10-15 06:43 G	28131666.71	28131666.78	28131666.84	0.1709	0.1538
Mercury	72310-11-05 20:24 G	28132053.23	28132053.35	28132053.47	0.1826	0.0332
Venus	72319-09-01 18:58 G	28135275.12	28135275.29	28135275.46	0.1615	0.0347
Mercury	72320-03-28 03:51 G	28135483.54	28135483.66	28135483.78	0.1820	0.0549
Venus	72320-08-06 00:29 G	28135614.43	28135614.52	28135614.61	0.1908	0.1607
Mercury	72321-02-10 18:58 G	28135803.20	28135803.29	28135803.38	0.1692	0.1329
Earth	72326-06-11 06:29 G	28137749.59	28137749.77	28137749.96	0.1844	0.0601
Moon	72326-06-11 14:24 G	28137749.92	28137750.10	28137750.28	0.1843	0.0623 *
Mercury	72329-08-18 11:03 G	28138913.89	28138913.96	28138914.04	0.1813	0.1412
Mercury	72330-07-03 23:31 G	28139233.33	28139233.48	28139233.62	0.1698	0.0460
Mercury	72339-11-24 03:22 G	28142663.50	28142663.64	28142663.79	0.1704	0.0458
Mercury	72340-12-14 13:41 G	28143049.99	28143050.07	28143050.16	0.1832	0.1382
Mercury	72349-04-15 06:58 G	28146093.71	28146093.79	28146093.88	0.1710	0.1409
Mercury	72350-05-06 20:39 G	28146480.24	28146480.36	28146480.48	0.1826	0.0450
Mercury	72359-09-27 03:36 G	28149910.53	28149910.65	28149910.77	0.1819	0.0453
Mercury	72360-08-11 19:12 G	28150230.23	28150230.30	28150230.38	0.1693	0.1451
Mercury	72369-02-16 11:03 G	28153340.88	28153340.96	28153341.05	0.1814	0.1311

Mercury	72370-01-02 00:00 G	28153660.36	28153660.50	28153660.64	0.1698	0.0588
Mercury	72379-05-25 03:51 G	28157090.52	28157090.66	28157090.81	0.1704	0.0331
Mercury	72380-06-14 13:55 G	28157477.01	28157477.08	28157477.15	0.1833	0.1495
Venus	72385-06-29 07:27 G	28159317.64	28159317.81	28159317.99	0.1615	0.0148
Venus	72386-06-03 02:39 G	28159656.45	28159656.61	28159656.77	0.1909	0.0799
Mercury	72388-10-14 07:41 G	28160520.72	28160520.82	28160520.92	0.1710	0.1273
Mercury	72389-11-04 20:39 G	28160907.24	28160907.36	28160907.48	0.1826	0.0556
Moon	72398-12-06 15:51 G	28164226.10	28164226.16	28164226.23	0.1676	0.1569
Earth	72398-12-06 21:22 G	28164226.36	28164226.39	28164226.42	0.1676	0.1646
Mercury	72399-03-28 03:51 G	28164337.53	28164337.66	28164337.78	0.1820	0.0343
Mercury	72400-02-10 19:41 G	28164657.27	28164657.32	28164657.37	0.1693	0.1571
Mercury	72408-08-17 11:17 G	28167767.87	28167767.97	28167768.06	0.1813	0.1207
Mercury	72409-07-03 00:15 G	28168087.37	28168087.51	28168087.64	0.1698	0.0701
Mercury	72418-11-23 04:34 G	28171517.54	28171517.69	28171517.84	0.1704	0.0194
Mercury	72419-12-14 13:55 G	28171904.02	28171904.08	28171904.14	0.1832	0.1594
Mercury	72428-04-14 08:10 G	28174947.73	28174947.84	28174947.95	0.1709	0.1142
Mercury	72429-05-05 20:39 G	28175334.24	28175334.36	28175334.48	0.1826	0.0656
Mercury	72438-09-26 03:51 G	28178764.54	28178764.66	28178764.79	0.1820	0.0235
Mercury	72439-08-11 20:10 G	28179084.33	28179084.34	28179084.35	0.1693	0.1686
Mercury	72448-02-16 11:17 G	28182194.87	28182194.97	28182195.07	0.1813	0.1099
Mercury	72449-01-01 00:43 G	28182514.40	28182514.53	28182514.66	0.1698	0.0828
Venus	72451-04-26 19:55 G	28183360.16	28183360.33	28183360.51	0.1614	0.0067
Venus	72452-03-30 05:17 G	28183698.55	28183698.72	28183698.90	0.1910	0.0036
Mercury	72458-05-24 04:48 G	28185944.55	28185944.70	28185944.85	0.1704	0.0074
Mercury	72459-06-14 14:10 G	28186331.04	28186331.09	28186331.13	0.1832	0.1707
Mercury	72467-10-14 08:24 G	28189374.74	28189374.85	28189374.98	0.1710	0.1014
Mercury	72468-11-03 20:53 G	28189761.25	28189761.37	28189761.48	0.1826	0.0767
Earth	72477-12-09 05:17 G	28193083.57	28193083.72	28193083.87	0.1680	0.1030
Moon	72477-12-09 09:07 G	28193083.71	28193083.88	28193084.04	0.1680	0.0945 *
Mercury	72478-03-27 03:51 G	28193191.53	28193191.66	28193191.79	0.1819	0.0136

Mercury	72487-08-17 11:17 G	28196621.87	28196621.97	28196622.07	0.1814	0.1000
Mercury	72488-07-02 01:12 G	28196941.43	28196941.55	28196941.67	0.1698	0.0953
Mercury	72497-11-22 05:17 G	28200371.57	28200371.72	28200371.87	0.1704	0.0061
Mercury	72498-12-13 14:10 G	28200758.08	28200758.09	28200758.11	0.1833	0.1813
Mercury	72507-04-15 09:07 G	28203801.75	28203801.88	28203802.01	0.1710	0.0880
Mercury	72508-05-05 20:53 G	28204188.26	28204188.37	28204188.48	0.1826	0.0878
Venus	72517-02-22 08:53 G	28207402.69	28207402.87	28207403.04	0.1614	0.0264
Mercury	72517-09-26 03:51 G	28207618.54	28207618.66	28207618.79	0.1820	0.0050
Venus	72518-01-26 07:27 G	28207740.65	28207740.81	28207740.97	0.1911	0.0815
Mercury	72527-02-16 11:17 G	28211048.87	28211048.97	28211049.08	0.1813	0.0894
Mercury	72528-01-02 01:27 G	28211368.45	28211368.56	28211368.68	0.1698	0.1071
Mercury	72536-07-08 18:43 G	28214479.25	28214479.28	28214479.32	0.1807	0.1735
Mercury	72537-05-24 05:46 G	28214798.60	28214798.74	28214798.89	0.1704	0.0191
Mercury	72546-10-14 09:22 G	28218228.76	28218228.89	28218229.03	0.1710	0.0755
Mercury	72547-11-04 20:53 G	28218615.26	28218615.37	28218615.47	0.1826	0.0970
Mercury	72557-03-27 04:05 G	28222045.55	28222045.67	28222045.80	0.1820	0.0084
Mercury	72566-08-17 11:17 G	28225475.86	28225475.97	28225476.08	0.1813	0.0792
Mercury	72567-07-03 01:55 G	28225795.48	28225795.58	28225795.69	0.1698	0.1194
Mercury	72576-01-07 18:58 G	28228906.24	28228906.29	28228906.34	0.1807	0.1627
Mercury	72576-11-22 06:15 G	28229225.61	28229225.76	28229225.90	0.1704	0.0305
Venus	72582-12-20 21:22 G	28231445.22	28231445.39	28231445.55	0.1613	0.0471
Venus	72583-11-23 09:22 G	28231782.80	28231782.89	28231782.98	0.1911	0.1631
Mercury	72586-04-14 09:51 G	28232655.78	28232655.91	28232656.05	0.1710	0.0626
Mercury	72587-05-05 21:07 G	28233042.28	28233042.38	28233042.48	0.1826	0.1086
Mercury	72595-09-04 13:27 G	28236086.01	28236086.06	28236086.12	0.1715	0.1579
Mercury	72596-09-25 04:05 G	28236472.54	28236472.67	28236472.79	0.1819	0.0185
Mercury	72606-02-16 11:31 G	28239902.86	28239902.98	28239903.09	0.1813	0.0691
Mercury	72607-01-02 02:24 G	28240222.51	28240222.60	28240222.70	0.1698	0.1317
Moon	72610-06-13 00:15 G	28241480.43	28241480.51	28241480.59	0.1852	0.1712
Earth	72610-06-13 01:27 G	28241480.44	28241480.56	28241480.68	0.1852	0.1466 *

Venus	72614-12-20 13:55 G	28243132.05	28243132.08	28243132.12	0.1615	0.1567
Mercury	72615-07-09 18:58 G	28243333.23	28243333.29	28243333.36	0.1807	0.1521
Mercury	72616-05-24 06:43 G	28243652.63	28243652.78	28243652.92	0.1704	0.0430
Mercury	72625-10-14 10:34 G	28247082.79	28247082.94	28247083.08	0.1710	0.0495
Mercury	72626-11-04 21:07 G	28247469.28	28247469.38	28247469.47	0.1826	0.1190
Mercury	72635-03-06 13:41 G	28250513.00	28250513.07	28250513.15	0.1716	0.1459
Mercury	72636-03-27 04:05 G	28250899.55	28250899.67	28250899.80	0.1820	0.0286
Mercury	72645-08-17 11:31 G	28254329.86	28254329.98	28254330.09	0.1813	0.0590
Mercury	72646-07-03 02:53 G	28254649.54	28254649.62	28254649.69	0.1698	0.1429
Venus	72648-10-18 10:05 G	28255487.76	28255487.92	28255488.08	0.1613	0.0669
Mercury	72655-01-07 18:58 G	28257760.21	28257760.29	28257760.36	0.1807	0.1431
Mercury	72655-11-23 07:12 G	28258079.66	28258079.80	28258079.94	0.1704	0.0562
Mercury	72665-04-14 10:48 G	28261509.81	28261509.95	28261510.10	0.1710	0.0370
Mercury	72666-05-05 21:07 G	28261896.29	28261896.38	28261896.47	0.1826	0.1289
Mercury	72674-09-04 14:24 G	28264940.00	28264940.10	28264940.19	0.1716	0.1324
Mercury	72675-09-26 04:19 G	28265326.55	28265326.68	28265326.80	0.1820	0.0395
Venus	72680-10-17 02:53 G	28267174.53	28267174.62	28267174.71	0.1614	0.1364
Moon	72682-12-09 15:22 G	28267958.00	28267958.14	28267958.30	0.1671	0.0914
Earth	72682-12-09 19:12 G	28267958.15	28267958.30	28267958.46	0.1671	0.1001 *
Mercury	72685-02-15 11:31 G	28268756.86	28268756.98	28268757.10	0.1813	0.0483
Mercury	72686-01-01 03:22 G	28269076.58	28269076.64	28269076.69	0.1698	0.1554
Mercury	72694-07-08 18:58 G	28272187.21	28272187.29	28272187.38	0.1807	0.1324
Mercury	72695-05-24 07:27 G	28272506.68	28272506.81	28272506.95	0.1704	0.0674
Mercury	72704-10-14 11:17 G	28275936.83	28275936.97	28275937.12	0.1710	0.0243
Mercury	72705-11-04 21:07 G	28276323.30	28276323.38	28276323.46	0.1826	0.1395
Mercury	72714-03-06 14:53 G	28279367.01	28279367.12	28279367.23	0.1715	0.1186
Venus	72714-08-16 22:48 G	28279530.31	28279530.45	28279530.60	0.1613	0.0871
Mercury	72715-03-28 04:05 G	28279753.55	28279753.67	28279753.79	0.1819	0.0489
Mercury	72724-08-17 11:31 G	28283183.86	28283183.98	28283184.10	0.1813	0.0382
Mercury	72725-07-03 03:36 G	28283503.63	28283503.65	28283503.68	0.1698	0.1673

Mercury	72734-01-07 19:12 G	28286614.21	28286614.30	28286614.39	0.1807	0.1220
Mercury	72734-11-23 07:55 G	28286933.70	28286933.83	28286933.96	0.1704	0.0800
Mercury	72744-04-14 11:46 G	28290363.84	28290363.99	28290364.14	0.1710	0.0117
Mercury	72745-05-05 21:22 G	28290750.32	28290750.39	28290750.46	0.1826	0.1505
Venus	72746-08-15 15:22 G	28291217.02	28291217.14	28291217.26	0.1614	0.1153
Venus	72747-07-19 14:53 G	28291554.98	28291555.12	28291555.26	0.1911	0.1167
Mercury	72753-09-04 15:07 G	28293794.02	28293794.13	28293794.25	0.1716	0.1069
Mercury	72754-09-26 04:19 G	28294180.56	28294180.68	28294180.80	0.1819	0.0593
Moon	72761-12-12 19:27 G	28296815.20	28296815.31	28296815.41	0.1674	0.1383
Earth	72761-12-13 02:39 G	28296815.57	28296815.61	28296815.65	0.1674	0.1624
Mercury	72764-02-16 11:31 G	28297610.86	28297610.98	28297611.11	0.1813	0.0282
Mercury	72773-07-08 18:58 G	28301041.20	28301041.29	28301041.39	0.1807	0.1128
Mercury	72774-05-24 08:24 G	28301360.73	28301360.85	28301360.98	0.1704	0.0928
Venus	72780-06-13 11:17 G	28303572.84	28303572.97	28303573.10	0.1613	0.1078
Mercury	72783-10-14 12:15 G	28304790.86	28304791.01	28304791.16	0.1710	0.0015
Mercury	72784-11-03 21:07 G	28305177.33	28305177.38	28305177.44	0.1826	0.1599
Mercury	72793-03-05 15:51 G	28308221.03	28308221.16	28308221.29	0.1716	0.0930
Mercury	72794-03-27 04:19 G	28308607.57	28308607.68	28308607.80	0.1820	0.0707
Mercury	72803-08-17 11:31 G	28312037.86	28312037.98	28312038.11	0.1813	0.0183
Venus	72812-06-12 03:51 G	28315259.52	28315259.66	28315259.80	0.1613	0.0950
Mercury	72813-01-06 19:12 G	28315468.20	28315468.30	28315468.40	0.1807	0.1022
Venus	72813-05-15 16:48 G	28315597.03	28315597.20	28315597.37	0.1911	0.0346
Mercury	72813-11-22 08:53 G	28315787.75	28315787.87	28315787.98	0.1704	0.1040
Mercury	72823-04-14 12:43 G	28319217.88	28319218.03	28319218.18	0.1710	0.0142
Mercury	72824-05-04 21:22 G	28319604.35	28319604.39	28319604.43	0.1826	0.1711
Mercury	72832-09-03 16:19 G	28322648.05	28322648.18	28322648.31	0.1715	0.0799
Mercury	72833-09-25 04:19 G	28323034.57	28323034.68	28323034.79	0.1819	0.0792
Mercury	72843-02-15 11:46 G	28326464.86	28326464.99	28326465.11	0.1813	0.0085
Venus	72846-04-11 00:15 G	28327615.40	28327615.51	28327615.61	0.1612	0.1274
Mercury	72852-07-07 19:12 G	28329895.19	28329895.30	28329895.41	0.1806	0.0917

Mercury	72853-05-23 09:22 G	28330214.78	28330214.89	28330214.99	0.1704	0.1162
Mercury	72861-11-28 02:53 G	28333325.59	28333325.62	28333325.65	0.1800	0.1733
Mercury	72862-10-13 13:12 G	28333644.90	28333645.05	28333645.20	0.1710	0.0263
Mercury	72863-11-03 21:22 G	28334031.38	28334031.39	28334031.40	0.1826	0.1812
Mercury	72872-03-04 16:34 G	28337075.06	28337075.19	28337075.33	0.1716	0.0682
Mercury	72873-03-26 04:34 G	28337461.58	28337461.69	28337461.79	0.1819	0.0903
Venus	72878-04-09 16:19 G	28339302.03	28339302.18	28339302.34	0.1613	0.0743
Venus	72879-03-12 19:27 G	28339639.14	28339639.31	28339639.48	0.1912	0.0450
Mercury	72881-07-25 19:55 G	28340505.29	28340505.33	28340505.37	0.1722	0.1650
Mercury	72882-08-16 11:46 G	28340891.86	28340891.99	28340892.11	0.1813	0.0067
Mercury	72892-01-06 19:12 G	28344322.19	28344322.30	28344322.41	0.1806	0.0830
Mercury	72892-11-21 09:51 G	28344641.81	28344641.91	28344642.00	0.1704	0.1291
Mercury	72901-05-30 03:07 G	28347752.58	28347752.63	28347752.68	0.1800	0.1626
Mercury	72902-04-14 13:41 G	28348071.92	28348072.07	28348072.21	0.1710	0.0385
Mercury	72911-09-04 17:03 G	28351502.07	28351502.21	28351502.36	0.1716	0.0553
Venus	72912-02-07 12:43 G	28351657.96	28351658.03	28351658.09	0.1612	0.1481
Mercury	72912-09-25 04:34 G	28351888.58	28351888.69	28351888.79	0.1819	0.1006
Mercury	72921-01-24 20:10 G	28354932.28	28354932.34	28354932.41	0.1722	0.1525
Mercury	72922-02-15 11:46 G	28355318.86	28355318.99	28355319.11	0.1813	0.0127
Mercury	72931-07-08 19:12 G	28358749.19	28358749.30	28358749.41	0.1806	0.0722
Mercury	72932-05-23 10:05 G	28359068.84	28359068.92	28359069.00	0.1704	0.1396
Mercury	72940-11-28 02:53 G	28362179.56	28362179.62	28362179.69	0.1800	0.1539
Mercury	72941-10-13 14:10 G	28362498.94	28362499.09	28362499.23	0.1710	0.0510
Venus	72944-02-06 05:03 G	28363344.55	28363344.71	28363344.88	0.1613	0.0544
Venus	72945-01-07 21:07 G	28363681.25	28363681.38	28363681.50	0.1912	0.1285
Mercury	72951-03-05 17:46 G	28365929.09	28365929.24	28365929.38	0.1715	0.0417
Mercury	72952-03-26 04:34 G	28366315.59	28366315.69	28366315.79	0.1819	0.1101
Mercury	72960-07-25 20:39 G	28369359.28	28369359.36	28369359.45	0.1722	0.1395
Mercury	72961-08-16 11:46 G	28369745.87	28369745.99	28369746.11	0.1813	0.0226
Earth	72966-12-12 17:46 G	28371690.05	28371690.24	28371690.42	0.1665	0.0353

Moon	72966-12-13 00:15 G	28371690.32	28371690.51	28371690.70	0.1666	0.0105	*
Mercury	72971-01-06 19:12 G	28373176.19	28373176.30	28373176.42	0.1806	0.0622	
Mercury	72971-11-22 10:34 G	28373495.87	28373495.94	28373496.00	0.1704	0.1519	
Mercury	72980-05-29 03:07 G	28376606.56	28376606.63	28376606.70	0.1800	0.1434	
Mercury	72981-04-13 14:24 G	28376925.97	28376926.10	28376926.24	0.1710	0.0633	
Mercury	72990-09-03 18:00 G	28380356.10	28380356.25	28380356.40	0.1716	0.0301	
Mercury	72991-09-25 04:34 G	28380742.60	28380742.69	28380742.78	0.1819	0.1204	
Mercury	73000-01-24 21:22 G	28383786.29	28383786.39	28383786.49	0.1722	0.1255	

74TH MILLENNIUM CE

This is a list of transits visible from Mars in the 74th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	73001-02-15 11:46 G		28384172.87	28384172.99	28384173.11	0.1813	0.0323	
Venus	73009-12-04 17:31 G		28387387.06	28387387.23	28387387.40	0.1612	0.0339	
Mercury	73010-07-08 19:12 G		28387603.18	28387603.30	28387603.42	0.1806	0.0530	
Mercury	73011-05-24 11:03 G		28387922.92	28387922.96	28387923.00	0.1704	0.1642	
Mercury	73019-11-29 03:07 G		28391033.55	28391033.63	28391033.71	0.1800	0.1334	
Mercury	73020-10-13 14:53 G		28391352.99	28391353.12	28391353.26	0.1710	0.0751	
Mercury	73030-03-05 18:29 G		28394783.12	28394783.27	28394783.42	0.1716	0.0175	
Mercury	73031-03-27 04:48 G		28395169.61	28395169.70	28395169.78	0.1819	0.1313	
Mercury	73039-07-26 21:36 G		28398213.29	28398213.40	28398213.51	0.1722	0.1138	
Mercury	73040-08-16 11:46 G		28398599.87	28398599.99	28398600.11	0.1813	0.0424	
Mercury	73050-01-06 19:12 G		28402030.18	28402030.30	28402030.43	0.1806	0.0430	

Mercury	73059-05-30 03:07 G	28405460.54	28405460.63	28405460.72	0.1800	0.1242
Mercury	73060-04-13 15:22 G	28405780.02	28405780.14	28405780.27	0.1710	0.0877
Mercury	73069-09-03 18:58 G	28409210.14	28409210.29	28409210.44	0.1715	0.0055
Mercury	73070-09-25 04:34 G	28409596.61	28409596.69	28409596.77	0.1819	0.1398
Venus	73075-10-02 06:29 G	28411429.59	28411429.77	28411429.94	0.1612	0.0138
Mercury	73079-01-24 22:05 G	28412640.30	28412640.42	28412640.55	0.1722	0.1007
Mercury	73080-02-15 12:00 G	28413026.88	28413027.00	28413027.12	0.1813	0.0530
Mercury	73089-07-07 19:27 G	28416457.18	28416457.31	28416457.43	0.1806	0.0325
Mercury	73098-11-28 03:07 G	28419887.53	28419887.63	28419887.72	0.1800	0.1145
Mercury	73099-10-13 15:51 G	28420207.04	28420207.16	28420207.28	0.1710	0.0992
Venus	73108-09-03 01:41 G	28423453.46	28423453.57	28423453.68	0.1912	0.1468
Mercury	73109-03-05 19:27 G	28423637.16	28423637.31	28423637.46	0.1716	0.0077
Mercury	73110-03-27 04:48 G	28424023.63	28424023.70	28424023.77	0.1819	0.1508
Mercury	73118-07-26 22:48 G	28427067.32	28427067.45	28427067.58	0.1722	0.0869
Mercury	73119-08-17 11:46 G	28427453.88	28427453.99	28427454.11	0.1813	0.0624
Mercury	73129-01-06 19:12 G	28430884.18	28430884.30	28430884.43	0.1806	0.0236
Mercury	73138-05-30 03:07 G	28434314.53	28434314.63	28434314.73	0.1800	0.1040
Mercury	73139-04-14 16:19 G	28434634.06	28434634.18	28434634.29	0.1710	0.1111
Venus	73141-07-30 18:58 G	28435472.12	28435472.29	28435472.47	0.1612	0.0079
Mercury	73148-09-03 19:55 G	28438064.18	28438064.33	28438064.48	0.1716	0.0202
Mercury	73149-09-25 04:48 G	28438450.65	28438450.70	28438450.76	0.1819	0.1611
Mercury	73158-01-24 23:03 G	28441494.33	28441494.46	28441494.60	0.1722	0.0752
Mercury	73159-02-15 12:00 G	28441880.88	28441881.00	28441881.11	0.1813	0.0724
Mercury	73168-07-07 19:27 G	28445311.18	28445311.31	28445311.43	0.1806	0.0130
Venus	73174-07-01 04:05 G	28447495.51	28447495.67	28447495.84	0.1912	0.0680
Mercury	73177-11-28 03:07 G	28448741.52	28448741.63	28448741.73	0.1799	0.0956
Mercury	73178-10-13 16:48 G	28449061.10	28449061.20	28449061.30	0.1710	0.1235
Mercury	73187-04-20 11:17 G	28452171.94	28452171.97	28452171.99	0.1793	0.1733
Mercury	73188-03-04 20:24 G	28452491.20	28452491.35	28452491.50	0.1715	0.0328
Mercury	73189-03-26 04:48 G	28452877.66	28452877.70	28452877.74	0.1819	0.1701

Mercury	73197-07-25 23:31 G	28455921.34	28455921.48	28455921.62	0.1722	0.0625
Mercury	73198-08-16 12:00 G	28456307.89	28456308.00	28456308.11	0.1813	0.0824
Mercury	73206-12-16 02:24 G	28459351.55	28459351.60	28459351.65	0.1728	0.1608
Venus	73207-05-28 07:27 G	28459514.64	28459514.81	28459514.98	0.1612	0.0276
Mercury	73208-01-06 19:27 G	28459738.18	28459738.31	28459738.43	0.1806	0.0034
Mercury	73217-05-29 03:07 G	28463168.52	28463168.63	28463168.74	0.1800	0.0850
Mercury	73218-04-13 17:03 G	28463488.12	28463488.21	28463488.30	0.1710	0.1351
Mercury	73226-10-19 11:03 G	28466598.92	28466598.96	28466599.01	0.1793	0.1640
Mercury	73227-09-03 20:39 G	28466918.22	28466918.36	28466918.51	0.1716	0.0442
Mercury	73228-09-24 04:48 G	28467304.69	28467304.70	28467304.71	0.1819	0.1805
Mercury	73237-01-24 00:15 G	28470348.36	28470348.51	28470348.65	0.1722	0.0488
Mercury	73238-02-14 12:00 G	28470734.89	28470735.00	28470735.11	0.1813	0.0917
Venus	73240-04-27 05:46 G	28471537.56	28471537.74	28471537.91	0.1912	0.0159
Mercury	73246-06-16 02:53 G	28473778.54	28473778.62	28473778.70	0.1728	0.1482
Mercury	73247-07-07 19:27 G	28474165.18	28474165.31	28474165.43	0.1806	0.0073
Moon	73250-12-15 14:53 G	28475421.92	28475422.12	28475422.32	0.1660	0.0294
Earth	73250-12-15 16:34 G	28475422.01	28475422.19	28475422.38	0.1660	0.0303 *
Mercury	73256-11-27 03:07 G	28477595.52	28477595.63	28477595.75	0.1800	0.0753
Earth	73257-06-19 10:48 G	28477799.79	28477799.95	28477800.11	0.1863	0.1060
Moon	73257-06-19 11:17 G	28477799.81	28477799.97	28477800.12	0.1863	0.0916 *
Mercury	73257-10-12 17:31 G	28477915.15	28477915.23	28477915.30	0.1710	0.1465
Mercury	73266-04-19 11:03 G	28481025.90	28481025.96	28481026.03	0.1793	0.1543
Mercury	73267-03-04 21:07 G	28481345.24	28481345.38	28481345.53	0.1716	0.0573
Venus	73273-03-24 20:24 G	28483557.18	28483557.35	28483557.52	0.1612	0.0474
Mercury	73276-07-25 00:29 G	28484775.37	28484775.52	28484775.67	0.1722	0.0376
Mercury	73277-08-15 12:00 G	28485161.90	28485162.00	28485162.10	0.1813	0.1017
Mercury	73285-12-15 03:22 G	28488205.55	28488205.64	28488205.74	0.1728	0.1350
Mercury	73287-01-05 19:27 G	28488592.19	28488592.31	28488592.44	0.1806	0.0165
Mercury	73296-05-28 03:07 G	28492022.51	28492022.63	28492022.74	0.1799	0.0662
Mercury	73297-04-12 18:00 G	28492342.20	28492342.25	28492342.30	0.1710	0.1589

Venus	73305-03-24 12:29 G	28495243.97	28495244.02	28495244.07	0.1612	0.1533
Mercury	73305-10-19 11:03 G	28495452.89	28495452.96	28495453.04	0.1793	0.1450
Venus	73306-02-23 08:24 G	28495579.70	28495579.85	28495580.00	0.1912	0.0952
Mercury	73306-09-03 21:36 G	28495772.27	28495772.40	28495772.54	0.1716	0.0689
Mercury	73316-01-25 00:58 G	28499202.39	28499202.54	28499202.69	0.1722	0.0247
Mercury	73317-02-14 12:15 G	28499588.91	28499589.01	28499589.10	0.1813	0.1122
Mercury	73325-06-16 03:51 G	28502632.55	28502632.66	28502632.77	0.1728	0.1221
Mercury	73326-07-07 19:27 G	28503019.19	28503019.31	28503019.44	0.1806	0.0266
Mercury	73335-11-28 03:07 G	28506449.51	28506449.63	28506449.75	0.1800	0.0565
Mercury	73336-10-12 18:15 G	28506769.25	28506769.26	28506769.28	0.1710	0.1699
Venus	73339-01-21 08:39 G	28507599.71	28507599.86	28507600.02	0.1612	0.0683
Mercury	73345-04-19 11:17 G	28509879.89	28509879.97	28509880.04	0.1793	0.1352
Mercury	73346-03-04 22:05 G	28510199.29	28510199.42	28510199.55	0.1716	0.0807
Mercury	73355-07-26 01:41 G	28513629.41	28513629.57	28513629.72	0.1722	0.0124
Mercury	73356-08-15 12:00 G	28514015.91	28514016.00	28514016.09	0.1812	0.1211
Mercury	73364-12-15 04:19 G	28517059.56	28517059.68	28517059.80	0.1728	0.1094
Mercury	73366-01-05 19:27 G	28517446.19	28517446.31	28517446.43	0.1806	0.0352
Venus	73371-01-20 00:58 G	28519286.45	28519286.54	28519286.64	0.1612	0.1334
Venus	73371-12-21 09:51 G	28519621.85	28519621.91	28519621.97	0.1912	0.1788
Mercury	73375-05-29 03:22 G	28520876.52	28520876.64	28520876.76	0.1800	0.0462
Mercury	73384-10-18 11:03 G	28524306.88	28524306.96	28524307.05	0.1793	0.1259
Mercury	73385-09-02 22:34 G	28524626.31	28524626.44	28524626.56	0.1716	0.0931
Mercury	73395-01-24 01:55 G	28528056.43	28528056.58	28528056.73	0.1722	0.0019
Mercury	73396-02-14 12:15 G	28528442.92	28528443.01	28528443.09	0.1813	0.1312
Mercury	73404-06-16 04:48 G	28531486.58	28531486.70	28531486.83	0.1728	0.0967
Venus	73404-11-18 21:36 G	28531642.25	28531642.40	28531642.54	0.1612	0.0877
Mercury	73405-07-07 19:41 G	28531873.20	28531873.32	28531873.44	0.1806	0.0459
Mercury	73414-11-28 03:07 G	28535303.51	28535303.63	28535303.75	0.1799	0.0377
Mercury	73424-04-19 11:17 G	28538733.87	28538733.97	28538734.06	0.1793	0.1160
Mercury	73425-03-04 23:03 G	28539053.34	28539053.46	28539053.58	0.1716	0.1050

Mercury	73434-07-26 02:24 G	28542483.45	28542483.60	28542483.75	0.1722	0.0126
Mercury	73435-08-16 12:15 G	28542869.93	28542870.01	28542870.09	0.1813	0.1414
Venus	73436-11-17 13:41 G	28543328.95	28543329.07	28543329.19	0.1612	0.1127
Mercury	73443-12-16 05:17 G	28545913.59	28545913.72	28545913.86	0.1728	0.0836
Mercury	73445-01-05 19:41 G	28546300.20	28546300.32	28546300.43	0.1806	0.0555
Mercury	73454-05-29 03:22 G	28549730.51	28549730.64	28549730.76	0.1799	0.0281
Earth	73455-12-16 10:19 G	28550296.85	28550296.93	28550297.01	0.1653	0.1486
Moon	73455-12-16 11:31 G	28550296.92	28550296.98	28550297.05	0.1653	0.1516 *
Mercury	73463-10-19 11:03 G	28553160.87	28553160.96	28553161.06	0.1793	0.1072
Mercury	73464-09-02 23:17 G	28553480.36	28553480.47	28553480.58	0.1716	0.1163
Venus	73469-10-18 12:29 G	28555351.96	28555352.02	28555352.09	0.1913	0.1777
Venus	73470-09-16 10:05 G	28555684.79	28555684.92	28555685.05	0.1613	0.1081
Mercury	73474-01-24 02:53 G	28556910.48	28556910.62	28556910.77	0.1722	0.0265
Mercury	73475-02-14 12:15 G	28557296.94	28557297.01	28557297.08	0.1812	0.1504
Mercury	73483-06-16 05:46 G	28560340.60	28560340.74	28560340.88	0.1728	0.0713
Mercury	73484-07-06 19:41 G	28560727.20	28560727.32	28560727.43	0.1806	0.0648
Mercury	73492-11-05 08:24 G	28563770.83	28563770.85	28563770.87	0.1735	0.1712
Mercury	73493-11-27 03:22 G	28564157.51	28564157.64	28564157.76	0.1799	0.0181
Venus	73502-09-16 02:39 G	28567371.46	28567371.61	28567371.75	0.1612	0.0931
Mercury	73503-04-20 11:17 G	28567587.86	28567587.97	28567588.07	0.1793	0.0973
Mercury	73504-03-05 00:00 G	28567907.40	28567907.50	28567907.59	0.1716	0.1289
Mercury	73512-09-09 19:27 G	28571018.28	28571018.31	28571018.33	0.1786	0.1736
Mercury	73513-07-26 03:22 G	28571337.49	28571337.64	28571337.78	0.1722	0.0372
Mercury	73514-08-16 12:15 G	28571723.96	28571724.01	28571724.07	0.1812	0.1604
Mercury	73522-12-16 06:15 G	28574767.62	28574767.76	28574767.91	0.1728	0.0584
Mercury	73524-01-06 19:41 G	28575154.21	28575154.32	28575154.43	0.1806	0.0743
Mercury	73532-05-07 08:53 G	28578197.81	28578197.87	28578197.93	0.1734	0.1579
Mercury	73533-05-29 03:07 G	28578584.51	28578584.63	28578584.76	0.1799	0.0098
Moon	73534-12-19 09:36 G	28579153.74	28579153.90	28579154.06	0.1655	0.0830
Earth	73534-12-19 15:51 G	28579154.00	28579154.16	28579154.31	0.1656	0.0950 *

Venus	73535-08-16 14:24 G	28579393.95	28579394.10	28579394.25	0.1912	0.0957
Venus	73536-07-14 22:48 G	28579727.35	28579727.45	28579727.56	0.1613	0.1276
Earth	73541-06-21 22:34 G	28581530.25	28581530.44	28581530.64	0.1871	0.0229
Moon	73541-06-22 06:29 G	28581530.56	28581530.77	28581530.97	0.1871	0.0245 *
Mercury	73542-10-19 11:17 G	28582014.86	28582014.97	28582015.08	0.1793	0.0878
Mercury	73543-09-04 00:15 G	28582334.43	28582334.51	28582334.60	0.1716	0.1403
Mercury	73552-03-10 19:27 G	28585445.27	28585445.31	28585445.36	0.1786	0.1638
Mercury	73553-01-24 03:51 G	28585764.51	28585764.66	28585764.80	0.1722	0.0495
Mercury	73554-02-14 12:29 G	28586150.98	28586151.02	28586151.06	0.1813	0.1708
Mercury	73562-06-16 06:43 G	28589194.63	28589194.78	28589194.93	0.1728	0.0459
Mercury	73563-07-07 19:41 G	28589581.21	28589581.32	28589581.43	0.1806	0.0843
Venus	73568-07-13 15:07 G	28591413.97	28591414.13	28591414.28	0.1612	0.0726
Mercury	73571-11-06 09:07 G	28592624.80	28592624.88	28592624.96	0.1735	0.1459
Mercury	73572-11-27 03:22 G	28593011.51	28593011.64	28593011.76	0.1799	0.0056
Mercury	73582-04-19 11:17 G	28596441.86	28596441.97	28596442.08	0.1793	0.0783
Mercury	73583-03-05 00:43 G	28596761.46	28596761.53	28596761.60	0.1716	0.1520
Mercury	73591-09-09 19:12 G	28599872.25	28599872.30	28599872.36	0.1786	0.1557
Mercury	73592-07-25 04:19 G	28600191.54	28600191.68	28600191.82	0.1722	0.0624
Mercury	73593-08-15 12:15 G	28600578.00	28600578.01	28600578.03	0.1812	0.1795
Venus	73601-06-12 17:03 G	28603436.03	28603436.21	28603436.38	0.1912	0.0172
Mercury	73601-12-15 07:12 G	28603621.65	28603621.80	28603621.95	0.1728	0.0335
Venus	73602-05-12 11:17 G	28603769.90	28603769.97	28603770.04	0.1613	0.1482
Mercury	73603-01-05 19:41 G	28604008.21	28604008.32	28604008.43	0.1806	0.0933
Mercury	73611-05-07 09:51 G	28607051.81	28607051.91	28607052.01	0.1735	0.1323
Mercury	73612-05-28 03:22 G	28607438.52	28607438.64	28607438.77	0.1799	0.0119
Mercury	73621-10-18 11:17 G	28610868.85	28610868.97	28610869.08	0.1793	0.0693
Mercury	73622-09-03 01:12 G	28611188.51	28611188.55	28611188.59	0.1716	0.1638
Mercury	73631-03-10 19:27 G	28614299.24	28614299.31	28614299.38	0.1786	0.1455
Mercury	73632-01-24 04:34 G	28614618.56	28614618.69	28614618.83	0.1722	0.0733
Venus	73634-05-11 03:51 G	28615456.49	28615456.66	28615456.82	0.1612	0.0525

Mercury	73641-06-15 07:41 G	28618048.67	28618048.82	28618048.97	0.1728	0.0209
Mercury	73642-07-06 19:41 G	28618435.22	28618435.32	28618435.43	0.1806	0.1037
Mercury	73650-11-05 10:19 G	28621478.82	28621478.93	28621479.04	0.1734	0.1189
Mercury	73651-11-27 03:07 G	28621865.51	28621865.63	28621865.76	0.1799	0.0200
Mercury	73661-04-18 11:17 G	28625295.86	28625295.97	28625296.09	0.1793	0.0593
Venus	73667-04-09 18:29 G	28627478.11	28627478.27	28627478.44	0.1912	0.0664
Mercury	73670-09-08 19:27 G	28628726.23	28628726.31	28628726.39	0.1786	0.1361
Mercury	73671-07-25 05:03 G	28629045.58	28629045.71	28629045.84	0.1722	0.0858
Mercury	73680-12-14 08:10 G	28632475.69	28632475.84	28632475.99	0.1728	0.0087
Mercury	73682-01-04 19:41 G	28632862.23	28632862.32	28632862.42	0.1806	0.1130
Mercury	73690-05-06 10:48 G	28635905.83	28635905.95	28635906.07	0.1735	0.1073
Mercury	73691-05-28 03:22 G	28636292.52	28636292.64	28636292.76	0.1799	0.0299
Venus	73700-03-08 16:34 G	28639499.02	28639499.19	28639499.36	0.1612	0.0325
Mercury	73700-10-18 11:17 G	28639722.85	28639722.97	28639723.09	0.1792	0.0504
Mercury	73710-03-10 19:27 G	28643153.22	28643153.31	28643153.39	0.1786	0.1273
Mercury	73711-01-24 05:46 G	28643472.62	28643472.74	28643472.86	0.1722	0.0987
Mercury	73720-06-15 08:39 G	28646902.71	28646902.86	28646903.01	0.1728	0.0038
Mercury	73721-07-06 19:55 G	28647289.24	28647289.33	28647289.42	0.1806	0.1226
Mercury	73729-11-05 11:17 G	28650332.84	28650332.97	28650333.10	0.1735	0.0937
Mercury	73730-11-27 03:22 G	28650719.52	28650719.64	28650719.76	0.1799	0.0398
Venus	73733-02-04 21:22 G	28651520.27	28651520.39	28651520.50	0.1912	0.1443
Earth	73739-12-19 11:03 G	28654028.80	28654028.96	28654029.13	0.1648	0.0771
Moon	73739-12-19 17:17 G	28654029.04	28654029.22	28654029.40	0.1649	0.0644 *
Mercury	73740-04-18 11:17 G	28654149.85	28654149.97	28654150.09	0.1793	0.0406
Mercury	73749-09-08 19:27 G	28657580.22	28657580.31	28657580.40	0.1786	0.1177
Mercury	73750-07-25 06:00 G	28657899.64	28657899.75	28657899.86	0.1722	0.1091
Mercury	73759-12-15 09:07 G	28661329.73	28661329.88	28661330.03	0.1728	0.0174
Mercury	73761-01-04 19:55 G	28661716.24	28661716.33	28661716.41	0.1806	0.1319
Venus	73766-01-04 05:03 G	28663541.53	28663541.71	28663541.88	0.1613	0.0121
Mercury	73769-05-06 11:46 G	28664759.86	28664759.99	28664760.13	0.1734	0.0809

Mercury	73770-05-28 03:22 G	28665146.52	28665146.64	28665146.76	0.1799	0.0483
Mercury	73779-10-18 11:17 G	28668576.85	28668576.97	28668577.10	0.1793	0.0317
Mercury	73789-03-09 19:27 G	28672007.22	28672007.31	28672007.41	0.1786	0.1081
Mercury	73790-01-23 06:29 G	28672326.67	28672326.77	28672326.88	0.1722	0.1217
Mercury	73799-06-15 09:36 G	28675756.75	28675756.90	28675757.05	0.1728	0.0286
Mercury	73800-07-06 19:55 G	28676143.26	28676143.33	28676143.41	0.1806	0.1418
Mercury	73808-11-05 12:15 G	28679186.87	28679187.01	28679187.15	0.1735	0.0687
Mercury	73809-11-27 03:22 G	28679573.53	28679573.64	28679573.76	0.1799	0.0584
Mercury	73818-03-28 14:39 G	28682617.08	28682617.11	28682617.14	0.1741	0.1688
Earth	73818-12-22 16:19 G	28682886.16	28682886.18	28682886.20	0.1651	0.1638
Mercury	73819-04-19 11:17 G	28683003.85	28683003.97	28683004.10	0.1792	0.0224
Earth	73825-06-23 10:05 G	28685260.81	28685260.92	28685261.02	0.1879	0.1592
Mercury	73828-09-08 19:27 G	28686434.21	28686434.31	28686434.41	0.1786	0.0996
Mercury	73829-07-25 07:12 G	28686753.70	28686753.80	28686753.89	0.1722	0.1341
Venus	73831-11-02 18:00 G	28687584.07	28687584.25	28687584.42	0.1613	0.0076
Mercury	73838-01-30 03:51 G	28689864.64	28689864.66	28689864.69	0.1779	0.1728
Mercury	73838-12-15 10:05 G	28690183.78	28690183.92	28690184.07	0.1728	0.0411
Mercury	73840-01-05 19:55 G	28690570.27	28690570.33	28690570.40	0.1806	0.1511
Mercury	73848-05-06 12:43 G	28693613.89	28693614.03	28693614.18	0.1735	0.0558
Mercury	73849-05-28 03:36 G	28694000.53	28694000.65	28694000.76	0.1799	0.0683
Mercury	73857-09-26 14:53 G	28697044.06	28697044.12	28697044.19	0.1741	0.1572
Mercury	73858-10-18 11:17 G	28697430.85	28697430.97	28697431.10	0.1792	0.0136
Mercury	73868-03-09 19:27 G	28700861.21	28700861.31	28700861.42	0.1786	0.0898
Mercury	73869-01-23 07:27 G	28701180.73	28701180.81	28701180.89	0.1722	0.1448
Mercury	73877-07-31 03:51 G	28704291.61	28704291.66	28704291.70	0.1779	0.1644
Mercury	73878-06-15 10:34 G	28704610.80	28704610.94	28704611.09	0.1728	0.0538
Mercury	73879-07-06 19:55 G	28704997.28	28704997.33	28704997.39	0.1806	0.1610
Mercury	73887-11-05 13:27 G	28708040.91	28708041.06	28708041.21	0.1734	0.0429
Mercury	73888-11-26 03:22 G	28708427.53	28708427.64	28708427.75	0.1799	0.0764
Venus	73896-09-30 01:41 G	28711292.45	28711292.57	28711292.70	0.1912	0.1291

Mercury	73897-03-27 15:36 G	28711471.06	28711471.15	28711471.23	0.1741	0.1437
Venus	73897-08-30 06:29 G	28711626.60	28711626.77	28711626.94	0.1613	0.0276
Mercury	73898-04-18 11:31 G	28711857.86	28711857.98	28711858.10	0.1793	0.0026
Mercury	73907-09-09 19:27 G	28715288.20	28715288.31	28715288.42	0.1786	0.0805
Mercury	73908-07-25 07:55 G	28715607.77	28715607.83	28715607.89	0.1722	0.1570
Mercury	73917-01-30 03:51 G	28718718.60	28718718.66	28718718.72	0.1779	0.1549
Mercury	73917-12-15 11:03 G	28719037.82	28719037.96	28719038.10	0.1728	0.0655
Mercury	73919-01-05 19:55 G	28719424.30	28719424.33	28719424.37	0.1806	0.1703
Mercury	73927-05-07 13:41 G	28722467.92	28722468.07	28722468.22	0.1735	0.0313
Mercury	73928-05-28 03:36 G	28722854.54	28722854.65	28722854.76	0.1799	0.0868
Mercury	73936-09-26 16:19 G	28725898.08	28725898.18	28725898.28	0.1741	0.1299
Mercury	73937-10-18 11:31 G	28726284.85	28726284.98	28726285.10	0.1792	0.0082
Mercury	73947-03-10 19:27 G	28729715.20	28729715.31	28729715.42	0.1786	0.0715
Mercury	73948-01-24 08:24 G	28730034.83	28730034.85	28730034.88	0.1722	0.1695
Mercury	73956-07-31 03:51 G	28733145.60	28733145.66	28733145.73	0.1779	0.1454
Mercury	73957-06-15 11:31 G	28733464.85	28733464.98	28733465.12	0.1728	0.0772
Mercury	73958-07-06 20:10 G	28733851.33	28733851.34	28733851.35	0.1806	0.1800
Venus	73962-07-29 03:36 G	28735334.48	28735334.65	28735334.82	0.1912	0.0477
Venus	73963-06-28 19:12 G	28735669.13	28735669.30	28735669.47	0.1614	0.0469
Mercury	73966-11-05 14:24 G	28736894.95	28736895.10	28736895.25	0.1735	0.0178
Mercury	73967-11-27 03:36 G	28737281.55	28737281.65	28737281.76	0.1799	0.0964
Mercury	73976-03-27 16:34 G	28740325.08	28740325.19	28740325.30	0.1741	0.1180
Mercury	73977-04-18 11:31 G	28740711.86	28740711.98	28740712.10	0.1792	0.0157
Mercury	73986-09-08 19:41 G	28744142.20	28744142.32	28744142.43	0.1786	0.0624
Venus	73995-06-27 11:31 G	28747355.93	28747355.98	28747356.03	0.1612	0.1528
Mercury	73996-01-30 03:51 G	28747572.58	28747572.66	28747572.74	0.1779	0.1369
Mercury	73996-12-14 12:15 G	28747891.88	28747892.01	28747892.13	0.1728	0.0901

75TH MILLENNIUM CE

This is a list of transits visible from Mars in the 75th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	74006-05-06 14:53	G	28751321.97	28751322.12	28751322.27	0.1735	0.0055	
Mercury	74007-05-28 03:36	G	28751708.55	28751708.65	28751708.75	0.1799	0.1051	
Mercury	74015-09-26 17:03	G	28754752.09	28754752.21	28754752.34	0.1741	0.1051	
Mercury	74016-10-17 11:31	G	28755138.86	28755138.98	28755139.11	0.1793	0.0255	
Moon	74023-12-22 08:10	G	28757760.64	28757760.84	28757761.04	0.1644	0.0072	
Earth	74023-12-22 12:58	G	28757760.85	28757761.04	28757761.23	0.1644	0.0025	*
Mercury	74026-03-09 19:41	G	28758569.20	28758569.32	28758569.44	0.1786	0.0525	
Venus	74028-05-25 06:29	G	28759376.59	28759376.77	28759376.94	0.1911	0.0300	
Venus	74029-04-25 07:55	G	28759711.67	28759711.83	28759711.99	0.1614	0.0668	
Mercury	74035-07-31 03:51	G	28761999.58	28761999.66	28761999.75	0.1779	0.1275	
Mercury	74036-06-14 12:29	G	28762318.90	28762319.02	28762319.14	0.1728	0.1015	
Mercury	74045-11-04 15:22	G	28765748.99	28765749.14	28765749.29	0.1735	0.0068	
Mercury	74046-11-26 03:36	G	28766135.56	28766135.65	28766135.75	0.1799	0.1150	
Mercury	74055-03-27 17:46	G	28769179.11	28769179.24	28769179.37	0.1741	0.0911	
Mercury	74056-04-17 11:31	G	28769565.86	28769565.98	28769566.10	0.1792	0.0343	
Venus	74061-04-24 00:29	G	28771398.42	28771398.52	28771398.61	0.1613	0.1333	
Mercury	74065-09-07 19:27	G	28772996.20	28772996.31	28772996.43	0.1786	0.0443	
Mercury	74075-01-29 04:05	G	28776426.58	28776426.67	28776426.76	0.1779	0.1178	
Mercury	74075-12-14 12:58	G	28776745.93	28776746.04	28776746.16	0.1728	0.1137	
Mercury	74085-05-05 15:51	G	28780176.01	28780176.16	28780176.31	0.1735	0.0197	
Mercury	74086-05-27 03:51	G	28780562.57	28780562.66	28780562.75	0.1799	0.1249	
Venus	74094-03-22 08:10	G	28783418.70	28783418.84	28783418.98	0.1910	0.1120	

Mercury	74094-09-25 18:15 G	28783606.12	28783606.26	28783606.39	0.1741	0.0800
Venus	74095-02-20 20:39 G	28783754.21	28783754.36	28783754.51	0.1615	0.0864
Mercury	74095-10-17 11:31 G	28783992.86	28783992.98	28783993.10	0.1792	0.0436
Mercury	74105-03-09 19:41 G	28787423.20	28787423.32	28787423.44	0.1786	0.0340
Mercury	74114-07-31 03:51 G	28790853.57	28790853.66	28790853.76	0.1779	0.1096
Mercury	74115-06-15 13:41 G	28791172.97	28791173.07	28791173.17	0.1728	0.1259
Mercury	74124-11-04 16:19 G	28794603.03	28794603.18	28794603.33	0.1735	0.0319
Mercury	74125-11-26 03:36 G	28794989.57	28794989.65	28794989.74	0.1799	0.1331
Venus	74127-02-20 13:12 G	28795440.93	28795441.05	28795441.17	0.1613	0.1137
Mercury	74134-03-27 18:43 G	28798033.14	28798033.28	28798033.42	0.1741	0.0664
Mercury	74135-04-18 11:46 G	28798419.87	28798419.99	28798420.11	0.1792	0.0536
Mercury	74143-08-17 20:39 G	28801463.32	28801463.36	28801463.39	0.1748	0.1692
Mercury	74144-09-07 19:41 G	28801850.20	28801850.32	28801850.44	0.1786	0.0249
Mercury	74154-01-29 04:05 G	28805280.57	28805280.67	28805280.77	0.1779	0.1002
Mercury	74154-12-14 13:55 G	28805599.99	28805600.08	28805600.17	0.1728	0.1372
Venus	74160-01-18 10:48 G	28807460.93	28807460.95	28807460.98	0.1909	0.1885
Venus	74160-12-19 09:22 G	28807796.76	28807796.89	28807797.02	0.1615	0.1065
Mercury	74163-06-21 12:29 G	28808711.00	28808711.02	28808711.05	0.1772	0.1722
Mercury	74164-05-05 16:48 G	28809030.06	28809030.20	28809030.35	0.1735	0.0437
Mercury	74165-05-27 03:51 G	28809416.59	28809416.66	28809416.74	0.1799	0.1435
Mercury	74173-09-25 19:27 G	28812460.16	28812460.31	28812460.45	0.1741	0.0529
Mercury	74174-10-17 11:31 G	28812846.87	28812846.98	28812847.10	0.1792	0.0621
Mercury	74183-02-15 21:07 G	28815890.32	28815890.38	28815890.45	0.1748	0.1561
Mercury	74184-03-08 19:41 G	28816277.20	28816277.32	28816277.44	0.1786	0.0159
Venus	74192-12-18 01:41 G	28819483.43	28819483.57	28819483.71	0.1613	0.0936
Mercury	74193-07-30 04:05 G	28819707.56	28819707.67	28819707.77	0.1779	0.0905
Mercury	74194-06-14 14:24 G	28820027.03	28820027.10	28820027.18	0.1728	0.1489
Mercury	74202-12-21 12:29 G	28823137.98	28823138.02	28823138.07	0.1772	0.1633
Mercury	74203-11-05 17:31 G	28823457.08	28823457.23	28823457.37	0.1735	0.0565
Mercury	74204-11-26 04:05 G	28823843.60	28823843.67	28823843.73	0.1799	0.1528

Mercury	74213-03-27 19:41 G	28826887.17	28826887.32	28826887.47	0.1741	0.0417
Mercury	74214-04-18 11:46 G	28827273.88	28827273.99	28827274.10	0.1792	0.0716
Mercury	74222-08-17 21:51 G	28830317.32	28830317.41	28830317.49	0.1748	0.1431
Mercury	74223-09-08 19:41 G	28830704.20	28830704.32	28830704.45	0.1786	0.0075
Venus	74226-10-17 22:05 G	28831839.32	28831839.42	28831839.53	0.1616	0.1261
Earth	74228-12-22 11:46 G	28832635.94	28832635.99	28832636.04	0.1638	0.1575
Moon	74228-12-22 16:48 G	28832636.14	28832636.20	28832636.26	0.1638	0.1535
Mercury	74233-01-29 03:51 G	28834134.56	28834134.66	28834134.77	0.1779	0.0825
Mercury	74233-12-14 15:07 G	28834454.08	28834454.13	28834454.18	0.1728	0.1616
Mercury	74242-06-21 12:29 G	28837564.97	28837565.02	28837565.08	0.1773	0.1541
Mercury	74243-05-06 18:00 G	28837884.11	28837884.25	28837884.39	0.1735	0.0684
Mercury	74244-05-27 03:51 G	28838270.61	28838270.66	28838270.72	0.1799	0.1615
Mercury	74252-09-25 20:24 G	28841314.20	28841314.35	28841314.50	0.1741	0.0290
Mercury	74253-10-17 11:46 G	28841700.88	28841700.99	28841701.10	0.1792	0.0812
Venus	74257-11-15 12:43 G	28843190.94	28843191.03	28843191.13	0.1912	0.1618
Venus	74258-10-16 14:39 G	28843525.96	28843526.11	28843526.27	0.1614	0.0749
Mercury	74262-02-15 22:19 G	28844744.33	28844744.43	28844744.53	0.1748	0.1299
Mercury	74263-03-09 19:41 G	28845131.20	28845131.32	28845131.45	0.1786	0.0066
Mercury	74272-07-30 04:05 G	28848561.56	28848561.67	28848561.78	0.1779	0.0727
Mercury	74273-06-14 15:22 G	28848881.13	28848881.14	28848881.15	0.1728	0.1722
Mercury	74281-12-20 12:29 G	28851991.95	28851992.02	28851992.09	0.1772	0.1456
Mercury	74282-11-04 18:29 G	28852311.13	28852311.27	28852311.40	0.1735	0.0802
Mercury	74283-11-26 04:05 G	28852697.63	28852697.67	28852697.71	0.1799	0.1709
Mercury	74292-03-26 21:07 G	28855741.22	28855741.38	28855741.53	0.1741	0.0161
Venus	74292-08-14 11:03 G	28855881.88	28855881.96	28855882.03	0.1616	0.1459
Mercury	74293-04-17 11:46 G	28856127.88	28856127.99	28856128.10	0.1792	0.0898
Mercury	74301-08-17 22:48 G	28859171.34	28859171.45	28859171.56	0.1748	0.1173
Mercury	74302-09-08 19:41 G	28859558.20	28859558.32	28859558.45	0.1786	0.0134
Moon	74307-12-26 13:27 G	28861492.90	28861493.06	28861493.21	0.1640	0.0804
Earth	74307-12-26 15:51 G	28861492.99	28861493.16	28861493.33	0.1640	0.0746 *

Mercury	74312-01-30 04:05 G	28862988.56	28862988.67	28862988.79	0.1779	0.0634
Mercury	74321-06-21 12:29 G	28866418.95	28866419.02	28866419.10	0.1772	0.1363
Mercury	74322-05-06 18:58 G	28866738.16	28866738.29	28866738.42	0.1735	0.0924
Venus	74323-09-13 15:36 G	28867233.00	28867233.15	28867233.31	0.1911	0.0846
Venus	74324-08-14 03:22 G	28867568.47	28867568.64	28867568.80	0.1614	0.0544
Mercury	74331-09-26 21:22 G	28870168.24	28870168.39	28870168.54	0.1741	0.0049
Mercury	74332-10-17 11:46 G	28870554.89	28870554.99	28870555.10	0.1792	0.0993
Mercury	74341-02-15 23:31 G	28873598.35	28873598.48	28873598.60	0.1748	0.1038
Mercury	74342-03-09 19:55 G	28873985.20	28873985.33	28873985.45	0.1786	0.0213
Mercury	74351-07-31 04:05 G	28877415.55	28877415.67	28877415.78	0.1779	0.0554
Mercury	74360-12-20 12:29 G	28880845.94	28880846.02	28880846.11	0.1773	0.1275
Mercury	74361-11-04 19:27 G	28881165.19	28881165.31	28881165.43	0.1735	0.1043
Mercury	74371-03-27 21:51 G	28884595.26	28884595.41	28884595.57	0.1741	0.0102
Mercury	74372-04-17 12:00 G	28884981.90	28884982.00	28884982.10	0.1792	0.1090
Mercury	74380-08-17 00:00 G	28888025.37	28888025.50	28888025.63	0.1748	0.0918
Mercury	74381-09-07 19:55 G	28888412.21	28888412.33	28888412.45	0.1785	0.0302
Venus	74389-07-10 17:31 G	28891275.05	28891275.23	28891275.40	0.1910	0.0043
Venus	74390-06-11 15:51 G	28891610.99	28891611.16	28891611.33	0.1615	0.0352
Mercury	74391-01-29 04:05 G	28891842.55	28891842.67	28891842.79	0.1779	0.0458
Mercury	74400-06-20 12:29 G	28895272.93	28895273.02	28895273.11	0.1772	0.1186
Mercury	74401-05-05 19:55 G	28895592.22	28895592.33	28895592.44	0.1735	0.1162
Mercury	74410-09-25 22:34 G	28899022.29	28899022.44	28899022.59	0.1741	0.0217
Mercury	74411-10-17 11:46 G	28899408.90	28899408.99	28899409.09	0.1792	0.1171
Mercury	74420-02-16 00:29 G	28902452.38	28902452.52	28902452.66	0.1748	0.0788
Mercury	74421-03-08 19:55 G	28902839.21	28902839.33	28902839.45	0.1786	0.0391
Mercury	74430-07-30 04:05 G	28906269.55	28906269.67	28906269.80	0.1779	0.0369
Mercury	74439-12-20 12:29 G	28909699.93	28909700.02	28909700.12	0.1772	0.1099
Mercury	74440-11-03 20:24 G	28910019.25	28910019.35	28910019.45	0.1735	0.1281
Mercury	74450-03-26 22:48 G	28913449.30	28913449.45	28913449.60	0.1741	0.0330
Mercury	74451-04-17 12:00 G	28913835.91	28913836.00	28913836.09	0.1792	0.1268

Venus	74455-05-07 20:10 G	28915317.18	28915317.34	28915317.51	0.1909	0.0734
Venus	74456-04-08 04:34 G	28915653.52	28915653.69	28915653.87	0.1615	0.0156
Mercury	74459-08-17 00:58 G	28916879.40	28916879.54	28916879.69	0.1748	0.0659
Mercury	74460-09-06 19:55 G	28917266.21	28917266.33	28917266.45	0.1785	0.0480
Mercury	74469-01-06 02:39 G	28920309.57	28920309.61	28920309.65	0.1754	0.1693
Mercury	74470-01-28 04:05 G	28920696.55	28920696.67	28920696.79	0.1779	0.0283
Earth	74472-06-29 11:03 G	28921579.77	28921579.96	28921580.15	0.1888	0.0503
Moon	74472-06-29 19:41 G	28921580.15	28921580.32	28921580.49	0.1888	0.0834 *
Mercury	74479-06-20 12:43 G	28924126.93	28924127.03	28924127.13	0.1772	0.1004
Mercury	74480-05-04 20:53 G	28924446.28	28924446.37	28924446.46	0.1735	0.1396
Mercury	74488-11-09 21:22 G	28927557.36	28927557.39	28927557.41	0.1766	0.1709
Mercury	74489-09-24 23:31 G	28927876.33	28927876.48	28927876.62	0.1741	0.0455
Mercury	74490-10-16 12:00 G	28928262.92	28928263.00	28928263.08	0.1792	0.1362
Mercury	74499-02-15 01:41 G	28931306.42	28931306.57	28931306.71	0.1748	0.0536
Mercury	74500-03-08 19:55 G	28931693.22	28931693.33	28931693.45	0.1785	0.0574
Mercury	74508-07-08 03:07 G	28934736.56	28934736.63	28934736.69	0.1755	0.1574
Mercury	74509-07-30 04:05 G	28935123.55	28935123.67	28935123.80	0.1779	0.0200
Earth	74512-12-25 15:22 G	28936367.97	28936368.14	28936368.31	0.1635	0.0769
Moon	74512-12-25 19:27 G	28936368.13	28936368.31	28936368.48	0.1635	0.0739 *
Mercury	74518-12-20 12:29 G	28938553.92	28938554.02	28938554.13	0.1772	0.0924
Mercury	74519-11-04 21:22 G	28938873.32	28938873.39	28938873.46	0.1735	0.1513
Venus	74521-03-04 22:05 G	28939359.32	28939359.42	28939359.53	0.1907	0.1537
Venus	74522-02-04 17:17 G	28939696.04	28939696.22	28939696.39	0.1616	0.0050
Mercury	74528-05-11 21:22 G	28941984.34	28941984.39	28941984.43	0.1766	0.1623
Mercury	74529-03-27 00:00 G	28942303.36	28942303.50	28942303.65	0.1741	0.0587
Mercury	74530-04-17 12:00 G	28942689.93	28942690.00	28942690.07	0.1792	0.1445
Mercury	74538-08-17 02:10 G	28945733.44	28945733.59	28945733.73	0.1748	0.0414
Mercury	74539-09-07 19:55 G	28946120.22	28946120.33	28946120.45	0.1786	0.0663
Mercury	74548-01-07 03:51 G	28949163.57	28949163.66	28949163.74	0.1755	0.1436
Mercury	74549-01-28 04:19 G	28949550.55	28949550.68	28949550.80	0.1779	0.0102

Mercury	74558-06-20 12:43 G	28952980.92	28952981.03	28952981.13	0.1772	0.0832
Mercury	74559-05-05 21:51 G	28953300.36	28953300.41	28953300.46	0.1735	0.1632
Mercury	74567-11-10 21:22 G	28956411.33	28956411.39	28956411.45	0.1766	0.1535
Mercury	74568-09-25 00:29 G	28956730.38	28956730.52	28956730.65	0.1741	0.0691
Mercury	74569-10-16 12:00 G	28957116.94	28957117.00	28957117.07	0.1792	0.1538
Mercury	74578-02-15 02:39 G	28960160.46	28960160.61	28960160.77	0.1748	0.0282
Mercury	74579-03-08 20:10 G	28960547.22	28960547.34	28960547.45	0.1785	0.0753
Mercury	74587-07-08 04:19 G	28963590.58	28963590.68	28963590.78	0.1755	0.1310
Venus	74587-12-03 06:00 G	28963738.57	28963738.75	28963738.92	0.1617	0.0252
Mercury	74588-07-29 04:05 G	28963977.55	28963977.67	28963977.80	0.1779	0.0034
Earth	74591-12-28 18:58 G	28965225.22	28965225.29	28965225.36	0.1636	0.1513
Mercury	74597-12-19 12:43 G	28967407.92	28967408.03	28967408.14	0.1772	0.0741
Mercury	74607-05-12 21:22 G	28970838.32	28970838.39	28970838.46	0.1766	0.1445
Mercury	74608-03-27 00:58 G	28971157.41	28971157.54	28971157.68	0.1741	0.0818
Mercury	74609-04-17 12:15 G	28971543.96	28971544.01	28971544.06	0.1792	0.1634
Mercury	74617-08-17 03:07 G	28974587.48	28974587.63	28974587.78	0.1748	0.0164
Mercury	74618-09-07 20:10 G	28974974.23	28974974.34	28974974.44	0.1785	0.0842
Mercury	74627-01-07 04:48 G	28978017.59	28978017.70	28978017.81	0.1755	0.1184
Mercury	74628-01-29 04:19 G	28978404.56	28978404.68	28978404.80	0.1779	0.0082
Mercury	74637-06-20 12:43 G	28981834.91	28981835.03	28981835.14	0.1772	0.0660
Mercury	74646-11-10 21:22 G	28985265.31	28985265.39	28985265.46	0.1766	0.1365
Mercury	74647-09-26 01:27 G	28985584.44	28985584.56	28985584.69	0.1741	0.0941
Mercury	74648-10-16 12:00 G	28985970.97	28985971.00	28985971.04	0.1792	0.1713
Venus	74653-09-30 18:43 G	28987781.11	28987781.28	28987781.45	0.1618	0.0445
Mercury	74657-02-15 03:36 G	28989014.50	28989014.65	28989014.81	0.1748	0.0061
Mercury	74658-03-08 20:10 G	28989401.23	28989401.34	28989401.45	0.1786	0.0932
Mercury	74666-07-08 05:17 G	28992444.60	28992444.72	28992444.85	0.1755	0.1053
Mercury	74667-07-30 04:19 G	28992831.56	28992831.68	28992831.80	0.1779	0.0170
Mercury	74676-12-19 12:43 G	28996261.91	28996262.03	28996262.14	0.1772	0.0573
Venus	74684-10-28 02:39 G	28999131.47	28999131.61	28999131.75	0.1909	0.1173

Venus	74685-09-29 11:17 G	28999467.93	28999467.97	28999468.02	0.1615	0.1561
Mercury	74686-05-11 21:22 G	28999692.31	28999692.39	28999692.47	0.1765	0.1273
Mercury	74687-03-27 01:55 G	29000011.46	29000011.58	29000011.70	0.1741	0.1048
Mercury	74696-08-16 04:19 G	29003441.53	29003441.68	29003441.83	0.1748	0.0092
Mercury	74697-09-06 20:10 G	29003828.24	29003828.34	29003828.44	0.1785	0.1017
Mercury	74706-01-07 06:00 G	29006871.62	29006871.75	29006871.88	0.1755	0.0927
Mercury	74707-01-29 04:05 G	29007258.55	29007258.67	29007258.80	0.1779	0.0255
Mercury	74716-06-20 12:43 G	29010688.91	29010689.03	29010689.15	0.1772	0.0476
Venus	74719-07-30 07:12 G	29011823.65	29011823.80	29011823.96	0.1618	0.0649
Mercury	74725-11-10 21:22 G	29014119.30	29014119.39	29014119.48	0.1765	0.1187
Mercury	74726-09-26 02:24 G	29014438.49	29014438.60	29014438.72	0.1741	0.1172
Mercury	74736-02-16 04:48 G	29017868.54	29017868.70	29017868.85	0.1748	0.0211
Mercury	74737-03-08 20:10 G	29018255.24	29018255.34	29018255.44	0.1785	0.1107
Mercury	74745-07-08 06:15 G	29021298.63	29021298.76	29021298.90	0.1755	0.0810
Mercury	74746-07-30 04:19 G	29021685.56	29021685.68	29021685.80	0.1779	0.0343
Venus	74750-08-26 05:17 G	29023173.55	29023173.72	29023173.89	0.1908	0.0406
Venus	74751-07-28 23:46 G	29023510.40	29023510.49	29023510.58	0.1616	0.1354
Mercury	74755-12-20 12:29 G	29025115.91	29025116.02	29025116.14	0.1772	0.0404
Moon	74756-07-01 15:22 G	29025310.00	29025310.14	29025310.28	0.1895	0.1456
Earth	74756-07-01 17:17 G	29025310.07	29025310.22	29025310.38	0.1895	0.1200 *
Mercury	74765-05-11 21:22 G	29028546.30	29028546.39	29028546.48	0.1766	0.1102
Mercury	74766-03-27 03:07 G	29028865.53	29028865.63	29028865.73	0.1741	0.1294
Mercury	74775-08-17 05:17 G	29032295.57	29032295.72	29032295.87	0.1748	0.0327
Mercury	74776-09-06 20:10 G	29032682.25	29032682.34	29032682.43	0.1785	0.1197
Mercury	74785-01-06 06:58 G	29035725.65	29035725.79	29035725.93	0.1755	0.0675
Venus	74785-05-26 19:41 G	29035866.18	29035866.32	29035866.47	0.1619	0.0855
Mercury	74786-01-28 04:19 G	29036112.56	29036112.68	29036112.80	0.1779	0.0432
Mercury	74794-05-29 08:10 G	29039155.82	29039155.84	29039155.86	0.1762	0.1732
Mercury	74795-06-20 12:43 G	29039542.91	29039543.03	29039543.15	0.1772	0.0306
Moon	74796-12-28 12:43 G	29040099.84	29040100.03	29040100.22	0.1631	0.0239

Earth	74796-12-28 19:12 G	29040100.11	29040100.30	29040100.49	0.1631	0.0039 *
Mercury	74804-11-09 21:22 G	29042973.29	29042973.39	29042973.49	0.1765	0.1018
Mercury	74805-09-25 03:22 G	29043292.55	29043292.64	29043292.73	0.1741	0.1396
Mercury	74814-04-02 06:00 G	29046403.73	29046403.75	29046403.78	0.1759	0.1704
Mercury	74815-02-15 05:46 G	29046722.60	29046722.74	29046722.89	0.1748	0.0459
Mercury	74816-03-07 20:10 G	29047109.26	29047109.34	29047109.43	0.1785	0.1282
Venus	74816-06-22 07:12 G	29047215.63	29047215.80	29047215.97	0.1906	0.0392
Venus	74817-05-25 12:29 G	29047552.90	29047553.02	29047553.14	0.1617	0.1159
Mercury	74824-07-07 07:27 G	29050152.67	29050152.81	29050152.96	0.1755	0.0554
Mercury	74825-07-29 04:19 G	29050539.56	29050539.68	29050539.80	0.1779	0.0513
Mercury	74833-11-27 08:53 G	29053582.81	29053582.87	29053582.93	0.1762	0.1596
Mercury	74834-12-19 12:43 G	29053969.91	29053970.03	29053970.15	0.1772	0.0219
Mercury	74844-05-10 21:22 G	29057400.29	29057400.39	29057400.49	0.1765	0.0928
Mercury	74845-03-26 04:05 G	29057719.59	29057719.67	29057719.74	0.1741	0.1520
Venus	74851-03-24 08:39 G	29059908.72	29059908.86	29059908.99	0.1620	0.1052
Mercury	74853-10-01 06:15 G	29060830.71	29060830.76	29060830.80	0.1759	0.1616
Mercury	74854-08-16 06:15 G	29061149.61	29061149.76	29061149.90	0.1748	0.0565
Mercury	74855-09-06 20:10 G	29061536.27	29061536.34	29061536.42	0.1785	0.1371
Mercury	74864-01-06 07:55 G	29064579.69	29064579.83	29064579.98	0.1755	0.0433
Mercury	74865-01-27 04:19 G	29064966.57	29064966.68	29064966.80	0.1779	0.0603
Mercury	74873-05-28 09:22 G	29068009.81	29068009.89	29068009.98	0.1762	0.1462
Mercury	74874-06-19 12:43 G	29068396.90	29068397.03	29068397.15	0.1772	0.0142
Venus	74882-04-19 09:51 G	29071257.77	29071257.91	29071258.05	0.1905	0.1164
Venus	74883-03-23 00:58 G	29071595.40	29071595.54	29071595.68	0.1617	0.0955
Mercury	74883-11-09 21:22 G	29071827.28	29071827.39	29071827.49	0.1765	0.0848
Mercury	74884-09-24 04:34 G	29072146.64	29072146.69	29072146.74	0.1741	0.1636
Mercury	74893-04-01 06:15 G	29075257.70	29075257.76	29075257.82	0.1759	0.1525
Mercury	74894-02-14 06:43 G	29075576.64	29075576.78	29075576.92	0.1748	0.0688
Mercury	74895-03-07 20:24 G	29075963.28	29075963.35	29075963.42	0.1785	0.1461
Mercury	74903-07-08 08:39 G	29079006.71	29079006.86	29079007.01	0.1755	0.0307

Mercury	74904-07-29 04:19 G	29079393.57	29079393.68	29079393.80	0.1778	0.0694
Mercury	74912-11-27 09:51 G	29082436.81	29082436.91	29082437.01	0.1762	0.1347
Mercury	74913-12-19 12:43 G	29082823.91	29082824.03	29082824.15	0.1772	0.0058
Venus	74917-01-19 20:39 G	29083951.25	29083951.36	29083951.47	0.1621	0.1265
Mercury	74923-05-11 21:22 G	29086254.28	29086254.39	29086254.50	0.1765	0.0759
Mercury	74932-10-01 06:00 G	29089684.69	29089684.75	29089684.82	0.1759	0.1452
Mercury	74933-08-16 07:27 G	29090003.67	29090003.81	29090003.94	0.1748	0.0813
Mercury	74934-09-06 20:24 G	29090390.29	29090390.35	29090390.41	0.1785	0.1543
Mercury	74943-01-06 09:07 G	29093433.73	29093433.88	29093434.03	0.1755	0.0183
Mercury	74944-01-28 04:19 G	29093820.57	29093820.68	29093820.79	0.1779	0.0771
Venus	74949-01-18 13:27 G	29095637.91	29095638.06	29095638.21	0.1618	0.0754
Mercury	74952-05-28 10:34 G	29096863.83	29096863.94	29096864.05	0.1762	0.1217
Mercury	74953-06-19 12:43 G	29097250.91	29097251.03	29097251.16	0.1772	0.0062
Mercury	74962-11-09 21:22 G	29100681.28	29100681.39	29100681.50	0.1765	0.0676
Mercury	74972-04-01 06:15 G	29104111.68	29104111.76	29104111.83	0.1759	0.1362
Mercury	74973-02-14 07:41 G	29104430.69	29104430.82	29104430.95	0.1748	0.0921
Mercury	74974-03-07 20:24 G	29104817.30	29104817.35	29104817.40	0.1785	0.1631
Mercury	74982-07-07 09:36 G	29107860.75	29107860.90	29107861.05	0.1755	0.0067
Venus	74982-11-17 09:22 G	29107993.82	29107993.89	29107993.96	0.1623	0.1463
Mercury	74983-07-29 04:19 G	29108247.58	29108247.68	29108247.79	0.1778	0.0865
Mercury	74991-11-27 11:17 G	29111290.84	29111290.97	29111291.09	0.1762	0.1079
Mercury	74992-12-18 12:43 G	29111677.90	29111678.03	29111678.15	0.1772	0.0124

76TH MILLENNIUM CE

This is a list of transits visible from Mars in the 76th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	75001-12-29 19:12 G	29114975.21	29114975.30	29114975.39	0.1626	0.1427		
Moon	75001-12-30 01:27 G	29114975.44	29114975.56	29114975.68	0.1626	0.1234		
Mercury	75002-05-11 21:22 G	29115108.27	29115108.39	29115108.50	0.1765	0.0590		
Mercury	75011-10-02 06:15 G	29118538.68	29118538.76	29118538.84	0.1759	0.1276		
Mercury	75012-08-16 08:10 G	29118857.72	29118857.84	29118857.96	0.1748	0.1037		
Mercury	75013-09-06 20:24 G	29119244.32	29119244.35	29119244.38	0.1785	0.1720		
Venus	75014-11-17 01:55 G	29119680.42	29119680.58	29119680.75	0.1619	0.0550		
Mercury	75022-01-06 10:05 G	29122287.77	29122287.92	29122288.08	0.1755	0.0080		
Mercury	75023-01-28 04:19 G	29122674.58	29122674.68	29122674.79	0.1778	0.0953		
Mercury	75031-05-29 11:31 G	29125717.85	29125717.98	29125718.10	0.1762	0.0972		
Mercury	75032-06-19 12:43 G	29126104.91	29126105.03	29126105.15	0.1772	0.0208		
Mercury	75041-11-09 21:22 G	29129535.27	29129535.39	29129535.51	0.1765	0.0509		
Venus	75045-12-13 14:10 G	29131029.98	29131030.09	29131030.19	0.1907	0.1529		
Mercury	75051-04-02 06:00 G	29132965.66	29132965.75	29132965.84	0.1759	0.1199		
Mercury	75052-02-15 08:53 G	29133284.76	29133284.87	29133284.98	0.1748	0.1166		
Mercury	75061-07-07 10:34 G	29136714.79	29136714.94	29136715.10	0.1755	0.0181		
Mercury	75062-07-29 04:19 G	29137101.58	29137101.68	29137101.78	0.1778	0.1030		
Mercury	75070-11-27 12:00 G	29140144.87	29140145.00	29140145.14	0.1762	0.0841		
Mercury	75071-12-19 12:43 G	29140531.91	29140532.03	29140532.15	0.1772	0.0296		
Venus	75080-09-13 14:39 G	29143722.94	29143723.11	29143723.28	0.1620	0.0347		
Earth	75080-12-31 22:19 G	29143832.27	29143832.43	29143832.60	0.1628	0.0800		
Moon	75080-12-31 23:17 G	29143832.31	29143832.47	29143832.64	0.1628	0.0650 *		
Mercury	75081-05-10 21:22 G	29143962.27	29143962.39	29143962.51	0.1765	0.0420		
Mercury	75090-10-01 06:00 G	29147392.66	29147392.75	29147392.85	0.1759	0.1114		
Mercury	75091-08-16 09:07 G	29147711.78	29147711.88	29147711.99	0.1748	0.1268		
Mercury	75101-01-06 11:17 G	29151141.81	29151141.97	29151142.12	0.1755	0.0304		
Mercury	75102-01-28 04:19 G	29151528.59	29151528.68	29151528.78	0.1778	0.1120		

Mercury	75110-05-29 12:43 G	29154571.89	29154572.03	29154572.17	0.1762	0.0710
Mercury	75111-06-20 12:43 G	29154958.91	29154959.03	29154959.15	0.1771	0.0374
Venus	75111-10-11 16:05 G	29155072.01	29155072.17	29155072.33	0.1905	0.0721
Mercury	75120-11-09 21:22 G	29158389.27	29158389.39	29158389.51	0.1765	0.0339
Mercury	75130-04-02 06:15 G	29161819.66	29161819.76	29161819.85	0.1759	0.1026
Mercury	75131-02-15 09:36 G	29162138.81	29162138.90	29162139.00	0.1748	0.1387
Mercury	75139-08-23 15:07 G	29165250.10	29165250.13	29165250.16	0.1752	0.1692
Mercury	75140-07-07 11:46 G	29165568.84	29165568.99	29165569.13	0.1755	0.0421
Mercury	75141-07-29 04:34 G	29165955.60	29165955.69	29165955.78	0.1778	0.1208
Venus	75146-07-13 03:07 G	29167765.45	29167765.63	29167765.80	0.1621	0.0146
Mercury	75149-11-27 13:12 G	29168998.90	29168999.05	29168999.19	0.1762	0.0599
Mercury	75150-12-19 12:43 G	29169385.91	29169386.03	29169386.15	0.1772	0.0459
Mercury	75159-04-19 14:10 G	29172429.04	29172429.09	29172429.14	0.1769	0.1650
Mercury	75160-05-10 21:22 G	29172816.27	29172816.39	29172816.51	0.1765	0.0254
Mercury	75169-10-01 06:00 G	29176246.65	29176246.75	29176246.85	0.1758	0.0951
Mercury	75170-08-16 10:19 G	29176565.86	29176565.93	29176566.00	0.1748	0.1508
Venus	75177-08-07 18:43 G	29179114.10	29179114.28	29179114.45	0.1904	0.0058
Mercury	75179-02-21 15:07 G	29179677.09	29179677.13	29179677.18	0.1752	0.1607
Mercury	75180-01-06 12:15 G	29179995.86	29179996.01	29179996.15	0.1755	0.0538
Mercury	75181-01-27 04:19 G	29180382.60	29180382.68	29180382.77	0.1778	0.1286
Mercury	75189-05-28 13:41 G	29183425.92	29183426.07	29183426.22	0.1762	0.0470
Mercury	75190-06-19 12:58 G	29183812.92	29183813.04	29183813.15	0.1772	0.0554
Mercury	75198-10-18 14:24 G	29186856.03	29186856.10	29186856.18	0.1769	0.1534
Mercury	75199-11-09 21:22 G	29187243.27	29187243.39	29187243.51	0.1765	0.0176
Mercury	75209-04-01 06:00 G	29190673.65	29190673.75	29190673.86	0.1758	0.0864
Mercury	75210-02-14 10:34 G	29190992.89	29190992.94	29190993.00	0.1748	0.1612
Venus	75212-05-09 15:36 G	29191807.97	29191808.15	29191808.32	0.1622	0.0074
Mercury	75218-08-22 15:07 G	29194104.07	29194104.13	29194104.18	0.1752	0.1530
Mercury	75219-07-07 12:43 G	29194422.89	29194423.03	29194423.17	0.1755	0.0655
Mercury	75220-07-28 04:34 G	29194809.61	29194809.69	29194809.77	0.1778	0.1375

Mercury	75228-11-26 14:24 G	29197852.95	29197853.10	29197853.25	0.1762	0.0341
Mercury	75229-12-18 12:43 G	29198239.91	29198240.03	29198240.14	0.1771	0.0624
Mercury	75238-04-18 15:07 G	29201283.04	29201283.13	29201283.22	0.1769	0.1405
Mercury	75239-05-10 21:22 G	29201670.27	29201670.39	29201670.51	0.1765	0.0086
Venus	75243-06-04 20:39 G	29203156.20	29203156.36	29203156.52	0.1902	0.0823
Mercury	75248-09-30 06:00 G	29205100.64	29205100.75	29205100.86	0.1758	0.0780
Mercury	75249-08-15 11:03 G	29205419.95	29205419.96	29205419.99	0.1748	0.1727
Mercury	75258-02-20 15:07 G	29208531.06	29208531.13	29208531.20	0.1752	0.1445
Mercury	75259-01-05 13:12 G	29208849.92	29208850.05	29208850.19	0.1755	0.0776
Mercury	75260-01-27 04:34 G	29209236.62	29209236.69	29209236.76	0.1778	0.1460
Mercury	75268-05-27 14:39 G	29212279.96	29212280.11	29212280.26	0.1762	0.0233
Mercury	75269-06-18 12:43 G	29212666.92	29212667.03	29212667.15	0.1772	0.0716
Mercury	75277-10-17 15:51 G	29215710.05	29215710.16	29215710.26	0.1769	0.1272
Venus	75278-03-07 04:05 G	29215850.50	29215850.67	29215850.84	0.1623	0.0265
Mercury	75278-11-08 21:22 G	29216097.27	29216097.39	29216097.51	0.1765	0.0032
Moon	75285-12-31 23:17 G	29218707.28	29218707.47	29218707.67	0.1623	0.0491
Earth	75285-12-31 23:46 G	29218707.32	29218707.49	29218707.67	0.1623	0.0621 *
Mercury	75288-03-31 06:00 G	29219527.64	29219527.75	29219527.86	0.1758	0.0701
Mercury	75297-08-21 15:07 G	29222958.06	29222958.13	29222958.20	0.1752	0.1362
Mercury	75298-07-06 13:41 G	29223276.94	29223277.07	29223277.20	0.1755	0.0889
Mercury	75299-07-28 04:34 G	29223663.63	29223663.69	29223663.75	0.1778	0.1541
Mercury	75307-11-27 15:22 G	29226706.98	29226707.14	29226707.29	0.1762	0.0105
Mercury	75308-12-18 12:43 G	29227093.93	29227094.03	29227094.14	0.1771	0.0803
Venus	75309-04-01 23:17 G	29227198.38	29227198.47	29227198.57	0.1900	0.1578
Mercury	75317-04-18 16:19 G	29230137.06	29230137.18	29230137.29	0.1769	0.1155
Mercury	75318-05-10 21:22 G	29230524.27	29230524.39	29230524.51	0.1765	0.0081
Mercury	75327-10-01 06:00 G	29233954.64	29233954.75	29233954.87	0.1758	0.0617
Mercury	75337-02-20 15:07 G	29237385.05	29237385.13	29237385.21	0.1752	0.1286
Mercury	75338-01-05 14:10 G	29237703.97	29237704.09	29237704.22	0.1755	0.1009
Mercury	75339-01-27 04:34 G	29238090.64	29238090.69	29238090.74	0.1778	0.1626

Venus	75344-01-03 16:19 G	29239893.01	29239893.18	29239893.34	0.1625	0.0481
Mercury	75347-05-28 15:51 G	29241134.01	29241134.16	29241134.32	0.1762	0.0035
Mercury	75348-06-18 12:43 G	29241520.93	29241521.03	29241521.14	0.1771	0.0878
Mercury	75356-10-17 16:48 G	29244564.07	29244564.20	29244564.32	0.1769	0.1029
Mercury	75357-11-08 21:22 G	29244951.27	29244951.39	29244951.51	0.1765	0.0162
Earth	75365-01-04 02:10 G	29247564.55	29247564.59	29247564.64	0.1625	0.1572
Moon	75365-01-04 08:39 G	29247564.80	29247564.86	29247564.93	0.1625	0.1518
Mercury	75367-04-01 06:00 G	29248381.64	29248381.75	29248381.87	0.1758	0.0533
Venus	75376-01-02 09:07 G	29251579.83	29251579.88	29251579.93	0.1621	0.1542
Mercury	75376-08-21 15:07 G	29251812.04	29251812.13	29251812.21	0.1752	0.1202
Mercury	75377-07-06 14:39 G	29252131.00	29252131.11	29252131.23	0.1755	0.1123
Mercury	75378-07-28 04:34 G	29252517.66	29252517.69	29252517.72	0.1778	0.1713
Mercury	75386-11-26 16:19 G	29255561.03	29255561.18	29255561.33	0.1762	0.0132
Mercury	75387-12-18 12:43 G	29255947.93	29255948.03	29255948.14	0.1771	0.0964
Mercury	75396-04-17 17:31 G	29258991.10	29258991.23	29258991.36	0.1769	0.0896
Mercury	75397-05-09 21:22 G	29259378.27	29259378.39	29259378.51	0.1765	0.0244
Earth	75403-07-09 09:36 G	29261628.70	29261628.90	29261629.09	0.1903	0.0396
Moon	75403-07-09 12:15 G	29261628.85	29261629.01	29261629.18	0.1903	0.0795 *
Mercury	75406-10-01 06:00 G	29262808.63	29262808.75	29262808.87	0.1758	0.0456
Venus	75407-01-29 01:12 G	29262928.52	29262928.55	29262928.58	0.1904	0.1864
Venus	75409-11-01 04:48 G	29263935.55	29263935.70	29263935.86	0.1626	0.0679
Mercury	75416-02-21 15:07 G	29266239.04	29266239.13	29266239.22	0.1752	0.1116
Mercury	75417-01-05 15:22 G	29266558.03	29266558.14	29266558.24	0.1755	0.1240
Mercury	75426-05-28 16:48 G	29269988.05	29269988.20	29269988.36	0.1762	0.0258
Mercury	75427-06-19 12:58 G	29270374.94	29270375.04	29270375.14	0.1771	0.1053
Mercury	75435-10-18 17:46 G	29273418.10	29273418.24	29273418.38	0.1769	0.0785
Mercury	75436-11-08 21:22 G	29273805.27	29273805.39	29273805.51	0.1765	0.0327
Venus	75441-10-30 21:51 G	29275622.31	29275622.41	29275622.50	0.1622	0.1338
Mercury	75446-04-01 06:00 G	29277235.63	29277235.75	29277235.87	0.1758	0.0370
Mercury	75455-08-22 14:53 G	29280666.03	29280666.12	29280666.22	0.1751	0.1044

Mercury	75456-07-06 15:51 G	29280985.06	29280985.16	29280985.25	0.1755	0.1354
Mercury	75465-01-12 00:15 G	29284096.48	29284096.51	29284096.53	0.1746	0.1688
Mercury	75465-11-26 17:31 G	29284415.08	29284415.23	29284415.38	0.1762	0.0379
Mercury	75466-12-18 12:43 G	29284801.94	29284802.03	29284802.13	0.1771	0.1124
Venus	75472-11-25 03:36 G	29286970.51	29286970.65	29286970.79	0.1902	0.1094
Mercury	75475-04-18 18:29 G	29287845.13	29287845.27	29287845.41	0.1769	0.0656
Venus	75475-08-29 17:03 G	29287978.07	29287978.21	29287978.36	0.1627	0.0894
Mercury	75476-05-09 21:22 G	29288232.27	29288232.39	29288232.51	0.1765	0.0413
Mercury	75484-09-07 18:58 G	29291275.26	29291275.29	29291275.32	0.1776	0.1733
Mercury	75485-09-30 06:00 G	29291662.63	29291662.75	29291662.87	0.1758	0.0288
Mercury	75495-02-20 15:07 G	29295093.03	29295093.13	29295093.23	0.1752	0.0959
Mercury	75496-01-05 16:19 G	29295412.10	29295412.18	29295412.26	0.1755	0.1469
Mercury	75504-07-14 00:15 G	29298523.46	29298523.51	29298523.55	0.1745	0.1606
Mercury	75505-05-28 17:46 G	29298842.10	29298842.24	29298842.39	0.1762	0.0487
Mercury	75506-06-19 12:58 G	29299228.95	29299229.04	29299229.13	0.1771	0.1215
Venus	75507-08-29 10:19 G	29299664.81	29299664.93	29299665.05	0.1623	0.1135
Mercury	75514-10-18 19:12 G	29302272.15	29302272.30	29302272.45	0.1769	0.0525
Mercury	75515-11-09 21:22 G	29302659.27	29302659.39	29302659.51	0.1764	0.0490
Mercury	75524-03-09 19:41 G	29305702.25	29305702.32	29305702.38	0.1776	0.1606
Mercury	75525-04-01 06:00 G	29306089.63	29306089.75	29306089.87	0.1758	0.0208
Mercury	75534-08-22 15:07 G	29309520.02	29309520.13	29309520.23	0.1752	0.0874
Mercury	75535-07-07 16:48 G	29309839.13	29309839.20	29309839.26	0.1755	0.1579
Venus	75538-09-23 05:31 G	29311012.56	29311012.73	29311012.91	0.1900	0.0306
Venus	75541-06-27 05:17 G	29312020.60	29312020.72	29312020.85	0.1629	0.1102
Mercury	75544-01-13 00:15 G	29312950.45	29312950.51	29312950.56	0.1745	0.1527
Mercury	75544-11-26 18:29 G	29313269.13	29313269.27	29313269.42	0.1762	0.0613
Mercury	75545-12-18 12:58 G	29313655.96	29313656.04	29313656.12	0.1771	0.1299
Mercury	75554-04-18 19:27 G	29316699.16	29316699.31	29316699.46	0.1769	0.0415
Mercury	75555-05-10 21:22 G	29317086.27	29317086.39	29317086.51	0.1765	0.0575
Mercury	75563-09-08 20:10 G	29320129.26	29320129.34	29320129.42	0.1776	0.1484

Mercury	75564-09-30 06:00 G	29320516.63	29320516.75	29320516.87	0.1758	0.0129
Moon	75570-01-04 22:34 G	29322439.26	29322439.44	29322439.62	0.1621	0.0280
Earth	75570-01-05 04:34 G	29322439.51	29322439.69	29322439.88	0.1621	0.0193 *
Venus	75573-06-25 22:34 G	29323707.30	29323707.44	29323707.58	0.1624	0.0929
Mercury	75574-02-20 14:53 G	29323947.02	29323947.12	29323947.23	0.1751	0.0800
Mercury	75575-01-05 17:17 G	29324266.19	29324266.22	29324266.26	0.1755	0.1700
Mercury	75583-07-14 00:15 G	29327377.44	29327377.51	29327377.57	0.1745	0.1445
Mercury	75584-05-27 18:58 G	29327696.15	29327696.29	29327696.43	0.1762	0.0733
Mercury	75585-06-18 12:58 G	29328082.96	29328083.04	29328083.11	0.1771	0.1376
Mercury	75593-10-17 20:10 G	29331126.19	29331126.34	29331126.49	0.1769	0.0290
Mercury	75594-11-08 21:22 G	29331513.28	29331513.39	29331513.51	0.1765	0.0658
Mercury	75603-03-09 20:53 G	29334556.27	29334556.37	29334556.47	0.1776	0.1351
Mercury	75604-03-31 06:00 G	29334943.63	29334943.75	29334943.88	0.1758	0.0072
Venus	75604-07-20 08:39 G	29335054.68	29335054.86	29335055.03	0.1898	0.0435
Venus	75607-04-24 17:46 G	29336063.14	29336063.24	29336063.34	0.1630	0.1313
Mercury	75613-08-21 15:07 G	29338374.02	29338374.13	29338374.24	0.1752	0.0717
Mercury	75623-01-12 00:00 G	29341804.43	29341804.50	29341804.58	0.1745	0.1368
Mercury	75623-11-26 19:27 G	29342123.18	29342123.31	29342123.45	0.1762	0.0841
Mercury	75624-12-17 12:58 G	29342509.97	29342510.04	29342510.11	0.1771	0.1460
Mercury	75633-04-17 20:53 G	29345553.21	29345553.37	29345553.52	0.1769	0.0158
Mercury	75634-05-09 21:22 G	29345940.28	29345940.39	29345940.50	0.1764	0.0738
Venus	75639-04-23 11:17 G	29347749.81	29347749.97	29347750.12	0.1625	0.0725
Mercury	75642-09-07 21:22 G	29348983.28	29348983.39	29348983.50	0.1776	0.1230
Mercury	75643-09-30 06:00 G	29349370.63	29349370.75	29349370.87	0.1758	0.0037
Mercury	75653-02-19 15:07 G	29352801.01	29352801.13	29352801.24	0.1752	0.0632
Mercury	75662-07-13 00:00 G	29356231.42	29356231.50	29356231.58	0.1745	0.1286
Mercury	75663-05-27 20:10 G	29356550.21	29356550.34	29356550.46	0.1762	0.0963
Mercury	75664-06-17 12:58 G	29356936.99	29356937.04	29356937.10	0.1771	0.1550
Venus	75670-05-17 10:48 G	29359096.81	29359096.95	29359097.08	0.1896	0.1198
Mercury	75672-10-16 21:07 G	29359980.23	29359980.38	29359980.54	0.1769	0.0058

Venus	75673-02-19 06:00 G	29360105.69	29360105.75	29360105.81	0.1631	0.1526
Mercury	75673-11-07 21:22 G	29360367.28	29360367.39	29360367.50	0.1764	0.0819
Mercury	75682-03-08 22:05 G	29363410.29	29363410.42	29363410.54	0.1776	0.1102
Mercury	75683-03-31 06:15 G	29363797.63	29363797.76	29363797.88	0.1758	0.0138
Earth	75687-07-09 11:17 G	29365358.87	29365358.97	29365359.07	0.1908	0.1638
Moon	75687-07-09 17:46 G	29365359.08	29365359.24	29365359.41	0.1908	0.1197
Mercury	75692-08-20 14:53 G	29367228.01	29367228.12	29367228.24	0.1751	0.0559
Mercury	75702-01-12 00:00 G	29370658.42	29370658.50	29370658.59	0.1745	0.1207
Mercury	75702-11-26 20:39 G	29370977.24	29370977.36	29370977.48	0.1762	0.1080
Mercury	75703-12-18 12:58 G	29371363.99	29371364.04	29371364.08	0.1771	0.1620
Venus	75705-02-18 23:31 G	29371792.32	29371792.48	29371792.65	0.1627	0.0523
Mercury	75712-04-17 21:51 G	29374407.26	29374407.41	29374407.57	0.1769	0.0078
Mercury	75713-05-09 21:36 G	29374794.29	29374794.40	29374794.50	0.1765	0.0908
Mercury	75721-09-07 22:34 G	29377837.31	29377837.44	29377837.57	0.1776	0.0978
Mercury	75722-09-30 06:00 G	29378224.63	29378224.75	29378224.88	0.1758	0.0212
Mercury	75732-02-20 15:07 G	29381655.01	29381655.13	29381655.24	0.1751	0.0476
Mercury	75741-07-13 00:00 G	29385085.41	29385085.50	29385085.59	0.1745	0.1127
Mercury	75742-05-27 21:07 G	29385404.27	29385404.38	29385404.49	0.1762	0.1189
Mercury	75743-06-18 13:12 G	29385791.02	29385791.05	29385791.07	0.1771	0.1711
Mercury	75751-10-17 22:34 G	29388834.28	29388834.44	29388834.59	0.1769	0.0205
Mercury	75752-11-07 21:22 G	29389221.29	29389221.39	29389221.49	0.1764	0.0980
Mercury	75761-03-08 23:03 G	29392264.33	29392264.46	29392264.60	0.1776	0.0854
Mercury	75762-03-31 06:00 G	29392651.63	29392651.75	29392651.87	0.1758	0.0286
Venus	75770-12-17 11:46 G	29395834.82	29395834.99	29395835.17	0.1628	0.0314
Mercury	75771-08-21 15:07 G	29396082.01	29396082.13	29396082.25	0.1751	0.0391
Earth	75775-01-05 07:55 G	29397314.69	29397314.83	29397314.97	0.1617	0.1105
Moon	75775-01-05 14:10 G	29397314.95	29397315.09	29397315.22	0.1617	0.1135 *
Mercury	75781-01-11 00:00 G	29399512.41	29399512.50	29399512.60	0.1745	0.1047
Mercury	75781-11-25 21:36 G	29399831.30	29399831.40	29399831.50	0.1762	0.1312
Mercury	75790-06-03 09:22 G	29402942.86	29402942.89	29402942.92	0.1739	0.1675

Mercury	75791-04-17 22:48 G	29403261.30	29403261.45	29403261.61	0.1769	0.0314
Mercury	75792-05-08 21:22 G	29403648.30	29403648.39	29403648.49	0.1764	0.1069
Mercury	75800-09-07 23:46 G	29406691.35	29406691.49	29406691.63	0.1776	0.0732
Mercury	75801-09-30 06:15 G	29407078.64	29407078.76	29407078.88	0.1758	0.0368
Mercury	75811-02-20 14:53 G	29410509.00	29410509.12	29410509.24	0.1751	0.0319
Mercury	75820-07-13 00:00 G	29413939.40	29413939.50	29413939.60	0.1745	0.0966
Mercury	75821-05-27 22:05 G	29414258.34	29414258.42	29414258.51	0.1762	0.1425
Mercury	75829-12-03 09:22 G	29417369.85	29417369.89	29417369.94	0.1738	0.1596
Mercury	75830-10-17 23:31 G	29417688.33	29417688.48	29417688.63	0.1769	0.0433
Mercury	75831-11-08 21:36 G	29418075.31	29418075.40	29418075.49	0.1765	0.1150
Venus	75834-01-10 15:36 G	29418869.04	29418869.15	29418869.25	0.1899	0.1476
Venus	75836-10-15 00:29 G	29419877.35	29419877.52	29419877.70	0.1630	0.0118
Mercury	75840-03-09 00:15 G	29421118.37	29421118.51	29421118.66	0.1776	0.0605
Mercury	75841-03-31 06:15 G	29421505.64	29421505.76	29421505.88	0.1758	0.0450
Mercury	75849-07-30 00:29 G	29424548.47	29424548.52	29424548.56	0.1783	0.1700
Mercury	75850-08-21 15:07 G	29424936.01	29424936.13	29424936.25	0.1751	0.0239
Earth	75854-01-08 10:19 G	29426171.78	29426171.93	29426172.07	0.1618	0.1023
Moon	75854-01-08 13:27 G	29426171.95	29426172.06	29426172.17	0.1618	0.1273 *
Mercury	75860-01-12 00:00 G	29428366.40	29428366.50	29428366.61	0.1745	0.0890
Mercury	75860-11-25 22:34 G	29428685.37	29428685.44	29428685.52	0.1762	0.1535
Mercury	75869-06-03 09:22 G	29431796.83	29431796.89	29431796.94	0.1739	0.1520
Mercury	75870-04-18 00:15 G	29432115.37	29432115.51	29432115.66	0.1769	0.0564
Mercury	75871-05-09 21:36 G	29432502.31	29432502.40	29432502.48	0.1764	0.1228
Mercury	75879-09-08 00:58 G	29435545.39	29435545.54	29435545.69	0.1776	0.0486
Mercury	75880-09-29 06:15 G	29435932.64	29435932.76	29435932.87	0.1758	0.0527
Mercury	75889-01-28 01:12 G	29438975.48	29438975.55	29438975.62	0.1783	0.1562
Mercury	75890-02-19 15:07 G	29439363.01	29439363.13	29439363.25	0.1751	0.0151
Mercury	75899-07-13 00:00 G	29442793.40	29442793.50	29442793.61	0.1745	0.0808
Venus	75899-11-07 18:15 G	29442911.10	29442911.26	29442911.43	0.1897	0.0733
Mercury	75900-05-27 23:17 G	29443112.42	29443112.47	29443112.52	0.1762	0.1652

Venus	75902-08-13 12:43 G	29443919.86	29443920.03	29443920.20	0.1631	0.0100
Mercury	75908-12-03 09:22 G	29446223.83	29446223.89	29446223.96	0.1738	0.1439
Mercury	75909-10-18 00:29 G	29446542.38	29446542.52	29446542.67	0.1769	0.0667
Mercury	75910-11-08 21:36 G	29446929.32	29446929.40	29446929.48	0.1764	0.1309
Mercury	75919-03-10 01:27 G	29449972.41	29449972.56	29449972.72	0.1776	0.0360
Mercury	75920-03-31 06:15 G	29450359.64	29450359.76	29450359.87	0.1758	0.0608
Mercury	75928-07-30 01:55 G	29453402.48	29453402.58	29453402.67	0.1783	0.1434
Mercury	75929-08-21 14:53 G	29453790.00	29453790.12	29453790.25	0.1751	0.0090
Mercury	75939-01-12 00:00 G	29457220.39	29457220.50	29457220.61	0.1745	0.0730
Mercury	75948-06-03 09:22 G	29460650.82	29460650.89	29460650.97	0.1738	0.1358
Mercury	75949-04-18 01:12 G	29460969.41	29460969.55	29460969.69	0.1769	0.0790
Mercury	75950-05-09 21:36 G	29461356.33	29461356.40	29461356.48	0.1765	0.1396
Mercury	75958-09-08 01:55 G	29464399.43	29464399.58	29464399.74	0.1776	0.0245
Mercury	75959-09-30 06:15 G	29464786.65	29464786.76	29464786.87	0.1758	0.0689
Venus	75965-09-04 20:39 G	29466953.18	29466953.36	29466953.53	0.1894	0.0059
Mercury	75968-01-29 02:24 G	29467829.49	29467829.60	29467829.70	0.1783	0.1319
Venus	75968-06-10 00:58 G	29467962.37	29467962.54	29467962.71	0.1633	0.0308
Mercury	75969-02-19 15:08 G	29468217.01	29468217.13	29468217.25	0.1751	0.0036
Mercury	75978-07-13 00:00 G	29471647.39	29471647.50	29471647.62	0.1745	0.0651
Mercury	75987-12-03 09:22 G	29475077.81	29475077.89	29475077.97	0.1738	0.1288
Mercury	75988-10-17 01:56 G	29475396.45	29475396.58	29475396.71	0.1769	0.0914
Mercury	75989-11-07 21:36 G	29475783.33	29475783.40	29475783.46	0.1764	0.1467
Mercury	75998-03-09 02:39 G	29478826.46	29478826.61	29478826.77	0.1776	0.0118
Mercury	75999-03-31 06:15 G	29479213.65	29479213.76	29479213.87	0.1758	0.0768

77TH MILLENNIUM CE

This is a list of transits visible from Mars in the 77th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	76007-07-30 03:08	G	29482256.51	29482256.63	29482256.74	0.1783	0.1186	
Mercury	76008-08-20 15:08	G	29482644.01	29482644.13	29482644.25	0.1751	0.0091	
Mercury	76018-01-11 00:00	G	29486074.39	29486074.50	29486074.62	0.1745	0.0572	
Mercury	76027-06-03 09:22	G	29489504.81	29489504.89	29489504.98	0.1738	0.1203	
Mercury	76028-04-17 02:10	G	29489823.47	29489823.59	29489823.72	0.1769	0.1018	
Mercury	76029-05-08 21:36	G	29490210.35	29490210.40	29490210.46	0.1764	0.1554	
Venus	76031-07-03 00:00	G	29490995.34	29490995.50	29490995.66	0.1892	0.0741	
Venus	76034-04-07 13:27	G	29492004.89	29492005.06	29492005.22	0.1634	0.0519	
Mercury	76037-09-07 03:22	G	29493253.48	29493253.64	29493253.79	0.1776	0.0044	
Mercury	76038-09-29 06:15	G	29493640.65	29493640.76	29493640.87	0.1758	0.0848	
Mercury	76047-01-28 03:36	G	29496683.53	29496683.65	29496683.78	0.1783	0.1055	
Mercury	76048-02-19 14:53	G	29497071.00	29497071.12	29497071.25	0.1751	0.0171	
Mercury	76057-07-12 00:15	G	29500501.39	29500501.51	29500501.62	0.1745	0.0491	
Moon	76059-01-08 10:20	G	29501046.75	29501046.93	29501047.12	0.1615	0.0510	
Earth	76059-01-08 14:24	G	29501046.91	29501047.10	29501047.28	0.1615	0.0247	*
Venus	76066-04-06 06:58	G	29503691.74	29503691.79	29503691.85	0.1629	0.1527	
Mercury	76066-12-02 09:22	G	29503931.80	29503931.89	29503931.98	0.1738	0.1125	
Mercury	76067-10-17 02:53	G	29504250.50	29504250.62	29504250.74	0.1769	0.1138	
Mercury	76068-11-06 21:51	G	29504637.36	29504637.41	29504637.45	0.1764	0.1636	
Mercury	76077-03-08 03:51	G	29507680.51	29507680.66	29507680.82	0.1776	0.0126	
Mercury	76078-03-30 06:15	G	29508067.66	29508067.76	29508067.87	0.1758	0.0931	
Mercury	76086-07-29 04:05	G	29511110.54	29511110.67	29511110.80	0.1783	0.0945	
Mercury	76087-08-20 15:08	G	29511498.01	29511498.13	29511498.25	0.1751	0.0247	
Mercury	76097-01-10 00:00	G	29514928.39	29514928.50	29514928.62	0.1745	0.0417	
Venus	76097-04-29 02:10	G	29515037.49	29515037.59	29515037.70	0.1889	0.1487	

Venus	76100-02-03 01:27 G	29516047.40	29516047.56	29516047.71	0.1636	0.0736
Mercury	76106-06-03 09:22 G	29518358.79	29518358.89	29518358.98	0.1738	0.1049
Mercury	76107-04-18 03:36 G	29518677.55	29518677.65	29518677.76	0.1769	0.1265
Mercury	76108-05-08 21:36 G	29519064.38	29519064.40	29519064.43	0.1764	0.1712
Mercury	76115-10-24 18:44 G	29521789.25	29521789.28	29521789.32	0.1732	0.1659
Mercury	76116-09-07 04:20 G	29522107.53	29522107.68	29522107.84	0.1776	0.0241
Mercury	76117-09-29 06:15 G	29522494.66	29522494.76	29522494.86	0.1758	0.1008
Mercury	76126-01-28 04:48 G	29525537.56	29525537.70	29525537.84	0.1783	0.0810
Mercury	76127-02-19 15:08 G	29525925.01	29525925.13	29525925.25	0.1751	0.0329
Venus	76132-02-02 19:27 G	29527734.21	29527734.31	29527734.41	0.1631	0.1323
Mercury	76136-07-12 00:15 G	29529355.39	29529355.51	29529355.62	0.1745	0.0339
Mercury	76145-12-02 09:22 G	29532785.79	29532785.89	29532785.99	0.1738	0.0971
Mercury	76146-10-17 03:51 G	29533104.57	29533104.66	29533104.76	0.1769	0.1362
Mercury	76155-04-24 18:44 G	29536216.24	29536216.28	29536216.33	0.1732	0.1585
Mercury	76156-03-08 05:03 G	29536534.56	29536534.71	29536534.86	0.1776	0.0368
Mercury	76157-03-30 06:29 G	29536921.67	29536921.77	29536921.86	0.1758	0.1089
Mercury	76165-07-29 05:32 G	29539964.58	29539964.73	29539964.87	0.1783	0.0687
Venus	76165-12-01 13:41 G	29540089.93	29540090.07	29540090.21	0.1637	0.0952
Mercury	76166-08-20 15:08 G	29540352.01	29540352.13	29540352.24	0.1751	0.0404
Mercury	76174-12-19 05:17 G	29543394.72	29543394.72	29543394.73	0.1790	0.1789
Mercury	76176-01-11 00:15 G	29543782.39	29543782.51	29543782.63	0.1745	0.0257
Mercury	76185-06-02 09:22 G	29547212.79	29547212.89	29547212.99	0.1738	0.0890
Mercury	76186-04-17 04:34 G	29547531.61	29547531.69	29547531.77	0.1769	0.1484
Mercury	76194-10-23 18:44 G	29550643.23	29550643.28	29550643.34	0.1732	0.1507
Mercury	76195-09-07 05:32 G	29550961.58	29550961.73	29550961.88	0.1776	0.0480
Mercury	76196-09-28 06:29 G	29551348.67	29551348.77	29551348.86	0.1758	0.1169
Venus	76197-11-30 07:41 G	29551776.69	29551776.82	29551776.94	0.1632	0.1112
Mercury	76205-01-28 06:00 G	29554391.60	29554391.75	29554391.90	0.1783	0.0571
Mercury	76206-02-19 15:08 G	29554779.01	29554779.13	29554779.25	0.1751	0.0484
Mercury	76214-06-20 06:00 G	29557821.70	29557821.75	29557821.81	0.1790	0.1655

Mercury	76215-07-13 00:00 G	29558209.38	29558209.50	29558209.63	0.1744	0.0191
Mercury	76224-12-02 09:22 G	29561639.78	29561639.89	29561639.99	0.1738	0.0819
Mercury	76225-10-17 05:17 G	29561958.66	29561958.72	29561958.78	0.1769	0.1602
Venus	76231-09-30 02:10 G	29564132.47	29564132.59	29564132.71	0.1639	0.1165
Mercury	76234-04-24 18:44 G	29565070.22	29565070.28	29565070.35	0.1732	0.1427
Mercury	76235-03-09 06:15 G	29565388.61	29565388.76	29565388.90	0.1776	0.0601
Mercury	76236-03-30 06:29 G	29565775.68	29565775.77	29565775.85	0.1758	0.1248
Mercury	76244-07-29 06:44 G	29568818.63	29568818.78	29568818.93	0.1783	0.0444
Mercury	76245-08-20 15:08 G	29569206.02	29569206.13	29569206.25	0.1751	0.0565
Mercury	76253-12-19 06:29 G	29572248.69	29572248.77	29572248.85	0.1790	0.1541
Mercury	76255-01-11 00:15 G	29572636.38	29572636.51	29572636.63	0.1745	0.0121
Venus	76260-12-23 06:58 G	29574809.66	29574809.79	29574809.93	0.1893	0.1165
Venus	76263-09-28 20:10 G	29575819.20	29575819.34	29575819.49	0.1634	0.0914
Earth	76264-01-09 19:41 G	29575922.24	29575922.32	29575922.40	0.1612	0.1460
Moon	76264-01-09 22:05 G	29575922.32	29575922.42	29575922.53	0.1612	0.1276 *
Mercury	76264-06-02 09:22 G	29576066.78	29576066.89	29576067.00	0.1738	0.0737
Mercury	76265-04-17 05:32 G	29576385.70	29576385.73	29576385.77	0.1769	0.1704
Mercury	76273-10-23 18:44 G	29579497.21	29579497.28	29579497.35	0.1732	0.1357
Mercury	76274-09-07 06:44 G	29579815.64	29579815.78	29579815.92	0.1776	0.0721
Mercury	76275-09-29 06:29 G	29580202.69	29580202.77	29580202.85	0.1757	0.1323
Mercury	76284-01-28 07:12 G	29583245.65	29583245.80	29583245.96	0.1783	0.0323
Mercury	76285-02-18 15:08 G	29583633.01	29583633.13	29583633.24	0.1751	0.0635
Mercury	76293-06-19 07:12 G	29586675.71	29586675.80	29586675.89	0.1791	0.1414
Mercury	76294-07-12 00:15 G	29587063.39	29587063.51	29587063.63	0.1745	0.0019
Venus	76297-07-27 14:10 G	29588175.00	29588175.09	29588175.19	0.1641	0.1381
Mercury	76303-12-03 09:22 G	29590493.78	29590493.89	29590494.00	0.1738	0.0660
Mercury	76313-04-24 18:44 G	29593924.20	29593924.28	29593924.36	0.1732	0.1276
Mercury	76314-03-09 07:12 G	29594242.67	29594242.80	29594242.94	0.1776	0.0833
Mercury	76315-03-31 06:29 G	29594629.70	29594629.77	29594629.84	0.1758	0.1404
Mercury	76323-07-30 07:41 G	29597672.67	29597672.82	29597672.98	0.1783	0.0211

Mercury	76324-08-20 15:08 G	29598060.02	29598060.13	29598060.24	0.1751	0.0719
Venus	76326-10-21 10:05 G	29598851.75	29598851.92	29598852.09	0.1890	0.0438
Venus	76329-07-27 08:10 G	29599861.68	29599861.84	29599862.00	0.1635	0.0696
Mercury	76332-12-19 08:10 G	29601102.73	29601102.84	29601102.94	0.1790	0.1274
Mercury	76334-01-11 00:15 G	29601490.38	29601490.51	29601490.63	0.1744	0.0085
Moon	76334-07-16 19:56 G	29601677.14	29601677.33	29601677.51	0.1914	0.0068
Earth	76334-07-17 00:15 G	29601677.31	29601677.51	29601677.71	0.1914	0.0208 *
Moon	76343-01-12 16:20 G	29604779.00	29604779.18	29604779.36	0.1613	0.0343
Earth	76343-01-12 21:08 G	29604779.21	29604779.38	29604779.56	0.1613	0.0621 *
Mercury	76343-06-03 09:22 G	29604920.78	29604920.89	29604921.00	0.1738	0.0585
Mercury	76352-10-23 18:44 G	29608351.20	29608351.28	29608351.37	0.1732	0.1199
Mercury	76353-09-07 07:41 G	29608669.70	29608669.82	29608669.96	0.1776	0.0947
Mercury	76354-09-29 06:29 G	29609056.71	29609056.77	29609056.83	0.1758	0.1482
Mercury	76363-01-28 08:24 G	29612099.70	29612099.85	29612100.01	0.1783	0.0093
Venus	76363-05-26 02:10 G	29612217.56	29612217.59	29612217.63	0.1643	0.1605
Mercury	76364-02-19 15:08 G	29612487.03	29612487.13	29612487.24	0.1751	0.0800
Mercury	76372-06-19 08:24 G	29615529.73	29615529.85	29615529.97	0.1791	0.1168
Mercury	76373-07-12 00:15 G	29615917.39	29615917.51	29615917.63	0.1744	0.0137
Mercury	76382-12-02 09:22 G	29619347.77	29619347.89	29619348.01	0.1738	0.0509
Mercury	76392-04-23 18:44 G	29622778.19	29622778.28	29622778.37	0.1732	0.1128
Venus	76392-08-17 12:29 G	29622893.84	29622894.02	29622894.19	0.1887	0.0311
Mercury	76393-03-08 08:39 G	29623096.73	29623096.86	29623096.98	0.1776	0.1071
Mercury	76394-03-30 06:29 G	29623483.72	29623483.77	29623483.83	0.1757	0.1559
Venus	76395-05-24 20:24 G	29623904.19	29623904.35	29623904.52	0.1637	0.0489
Mercury	76401-09-14 04:20 G	29626208.68	29626208.68	29626208.69	0.1726	0.1720
Mercury	76402-07-29 09:08 G	29626526.72	29626526.88	29626527.03	0.1783	0.0049
Mercury	76403-08-20 15:08 G	29626914.02	29626914.13	29626914.24	0.1751	0.0868
Mercury	76411-12-19 09:08 G	29629956.75	29629956.88	29629957.01	0.1790	0.1038
Mercury	76413-01-10 00:15 G	29630344.39	29630344.51	29630344.63	0.1745	0.0212
Mercury	76422-06-02 09:22 G	29633774.77	29633774.89	29633775.01	0.1738	0.0429

Mercury	76431-10-23 18:44 G	29637205.19	29637205.28	29637205.38	0.1732	0.1050
Mercury	76432-09-06 08:53 G	29637523.76	29637523.87	29637523.99	0.1776	0.1176
Mercury	76433-09-28 06:29 G	29637910.73	29637910.77	29637910.81	0.1757	0.1638
Mercury	76441-03-15 04:20 G	29640635.65	29640635.68	29640635.71	0.1726	0.1646
Mercury	76442-01-27 09:36 G	29640953.74	29640953.90	29640954.05	0.1783	0.0153
Mercury	76443-02-18 15:08 G	29641341.03	29641341.13	29641341.24	0.1751	0.0951
Mercury	76451-06-19 09:51 G	29644383.78	29644383.91	29644384.04	0.1790	0.0906
Mercury	76452-07-11 00:15 G	29644771.39	29644771.51	29644771.63	0.1744	0.0287
Venus	76458-06-14 16:05 G	29646936.02	29646936.17	29646936.32	0.1884	0.0992
Venus	76461-03-21 08:39 G	29647946.69	29647946.86	29647947.03	0.1639	0.0271
Mercury	76461-12-01 09:22 G	29648201.77	29648201.89	29648202.01	0.1738	0.0359
Mercury	76471-04-23 18:44 G	29651632.18	29651632.28	29651632.38	0.1732	0.0971
Mercury	76472-03-07 09:36 G	29651950.79	29651950.90	29651951.00	0.1776	0.1292
Mercury	76473-03-29 06:29 G	29652337.75	29652337.77	29652337.80	0.1758	0.1718
Mercury	76480-09-13 04:20 G	29655062.63	29655062.68	29655062.73	0.1725	0.1571
Mercury	76481-07-28 10:20 G	29655380.77	29655380.93	29655381.08	0.1783	0.0278
Mercury	76482-08-19 15:22 G	29655768.04	29655768.14	29655768.23	0.1751	0.1031
Mercury	76490-12-18 10:20 G	29658810.79	29658810.93	29658811.07	0.1790	0.0799
Mercury	76492-01-10 00:15 G	29659198.39	29659198.51	29659198.63	0.1744	0.0363
Mercury	76501-06-02 09:22 G	29662628.77	29662628.89	29662629.01	0.1738	0.0279
Mercury	76510-10-23 18:44 G	29666059.17	29666059.28	29666059.38	0.1731	0.0906
Mercury	76511-09-07 10:05 G	29666377.83	29666377.92	29666378.02	0.1776	0.1410
Mercury	76520-03-15 04:20 G	29669489.62	29669489.68	29669489.74	0.1726	0.1495
Mercury	76521-01-27 10:48 G	29669807.80	29669807.95	29669808.10	0.1783	0.0393
Mercury	76522-02-18 15:08 G	29670195.04	29670195.13	29670195.23	0.1751	0.1099
Venus	76524-04-11 18:29 G	29670978.21	29670978.27	29670978.34	0.1881	0.1717
Venus	76527-01-17 20:24 G	29671989.18	29671989.35	29671989.53	0.1641	0.0067
Mercury	76530-06-19 10:48 G	29673237.81	29673237.95	29673238.10	0.1791	0.0675
Mercury	76531-07-12 00:15 G	29673625.39	29673625.51	29673625.63	0.1745	0.0444
Mercury	76539-11-09 10:20 G	29676667.92	29676667.93	29676667.94	0.1798	0.1789

Mercury	76540-12-01 09:22 G	29677055.77	29677055.89	29677056.01	0.1738	0.0205
Earth	76548-01-13 02:39 G	29679654.44	29679654.61	29679654.79	0.1611	0.0593
Moon	76548-01-13 07:27 G	29679654.62	29679654.81	29679655.01	0.1611	0.0314 *
Mercury	76550-04-23 18:44 G	29680486.17	29680486.28	29680486.39	0.1732	0.0823
Mercury	76551-03-08 10:34 G	29680804.86	29680804.94	29680805.02	0.1776	0.1515
Mercury	76559-09-14 04:20 G	29683916.61	29683916.68	29683916.74	0.1725	0.1424
Mercury	76560-07-28 11:17 G	29684234.82	29684234.97	29684235.12	0.1783	0.0503
Mercury	76561-08-19 15:22 G	29684622.05	29684622.14	29684622.23	0.1751	0.1181
Mercury	76569-12-18 11:46 G	29687664.84	29687664.99	29687665.14	0.1790	0.0538
Mercury	76571-01-10 00:15 G	29688052.39	29688052.51	29688052.62	0.1744	0.0513
Mercury	76579-05-10 11:03 G	29691094.90	29691094.96	29691095.01	0.1798	0.1667
Mercury	76580-06-01 09:22 G	29691482.77	29691482.89	29691483.01	0.1738	0.0129
Mercury	76589-10-22 18:44 G	29694913.17	29694913.28	29694913.39	0.1732	0.0747
Mercury	76590-09-06 11:03 G	29695231.91	29695231.96	29695232.02	0.1776	0.1626
Venus	76592-11-14 08:39 G	29696031.69	29696031.86	29696032.03	0.1642	0.0171
Mercury	76599-03-15 04:20 G	29698343.61	29698343.68	29698343.75	0.1725	0.1347
Mercury	76600-01-27 12:00 G	29698661.86	29698662.00	29698662.15	0.1783	0.0627
Mercury	76601-02-18 15:22 G	29699049.05	29699049.14	29699049.22	0.1751	0.1258
Mercury	76609-06-19 12:00 G	29702091.85	29702092.00	29702092.15	0.1791	0.0439
Mercury	76610-07-12 00:15 G	29702479.39	29702479.51	29702479.62	0.1744	0.0591
Moon	76618-07-18 08:39 G	29705407.77	29705407.86	29705407.95	0.1916	0.1692
Mercury	76618-11-09 11:32 G	29705521.91	29705521.98	29705522.06	0.1798	0.1541
Mercury	76619-12-02 09:22 G	29705909.77	29705909.89	29705910.01	0.1738	0.0057
Venus	76622-02-07 19:56 G	29706708.24	29706708.33	29706708.42	0.1888	0.1602
Earth	76627-01-16 03:36 G	29708511.58	29708511.65	29708511.73	0.1611	0.1469
Moon	76627-01-16 09:08 G	29708511.79	29708511.88	29708511.98	0.1611	0.1365
Mercury	76629-04-23 18:44 G	29709340.16	29709340.28	29709340.39	0.1731	0.0681
Mercury	76630-03-08 12:00 G	29709658.97	29709659.00	29709659.02	0.1776	0.1747
Mercury	76638-09-14 04:20 G	29712770.60	29712770.68	29712770.76	0.1726	0.1274
Mercury	76639-07-29 12:29 G	29713088.88	29713089.02	29713089.16	0.1783	0.0737

Mercury	76640-08-19 15:08 G	29713476.06	29713476.13	29713476.21	0.1751	0.1328
Mercury	76648-12-18 12:44 G	29716518.88	29716519.03	29716519.18	0.1790	0.0311
Mercury	76650-01-10 00:15 G	29716906.40	29716906.51	29716906.62	0.1744	0.0667
Mercury	76658-05-10 12:15 G	29719948.91	29719949.01	29719949.10	0.1798	0.1417
Venus	76658-09-12 20:53 G	29720074.20	29720074.37	29720074.53	0.1644	0.0393
Mercury	76659-06-02 09:22 G	29720336.77	29720336.89	29720337.01	0.1738	0.0026
Mercury	76668-10-22 18:44 G	29723767.17	29723767.28	29723767.39	0.1731	0.0602
Mercury	76678-03-15 04:20 G	29727197.59	29727197.68	29727197.76	0.1725	0.1203
Mercury	76679-01-27 12:58 G	29727515.91	29727516.04	29727516.18	0.1783	0.0851
Mercury	76680-02-18 15:22 G	29727903.07	29727903.14	29727903.21	0.1751	0.1406
Venus	76687-12-05 23:03 G	29730750.30	29730750.46	29730750.61	0.1885	0.0886
Mercury	76688-06-18 13:27 G	29730945.90	29730946.06	29730946.21	0.1790	0.0185
Mercury	76689-07-11 00:15 G	29731333.40	29731333.51	29731333.62	0.1744	0.0739
Mercury	76697-11-08 12:44 G	29734375.93	29734376.03	29734376.14	0.1798	0.1297
Mercury	76698-12-01 09:22 G	29734763.77	29734763.89	29734764.01	0.1738	0.0100
Mercury	76708-04-23 18:44 G	29738194.16	29738194.28	29738194.39	0.1732	0.0524
Mercury	76717-09-14 04:20 G	29741624.59	29741624.68	29741624.77	0.1725	0.1130
Mercury	76718-07-29 13:41 G	29741942.94	29741943.07	29741943.20	0.1783	0.0966
Mercury	76719-08-20 15:22 G	29742330.08	29742330.14	29742330.20	0.1751	0.1485
Venus	76724-07-11 08:39 G	29744116.70	29744116.86	29744117.02	0.1646	0.0615
Mercury	76727-02-04 13:56 G	29745055.07	29745055.08	29745055.09	0.1719	0.1710
Mercury	76727-12-19 13:41 G	29745372.92	29745373.07	29745373.23	0.1791	0.0096
Mercury	76729-01-10 00:15 G	29745760.40	29745760.51	29745760.62	0.1744	0.0814
Mercury	76737-05-10 13:27 G	29748802.94	29748803.06	29748803.18	0.1798	0.1170
Mercury	76738-06-02 09:22 G	29749190.77	29749190.89	29749191.01	0.1738	0.0171
Mercury	76747-10-23 18:29 G	29752621.16	29752621.27	29752621.39	0.1731	0.0460
Venus	76753-10-03 02:10 G	29754792.41	29754792.59	29754792.76	0.1882	0.0183
Venus	76756-07-10 02:53 G	29755803.55	29755803.62	29755803.70	0.1640	0.1475
Mercury	76757-03-15 04:20 G	29756051.58	29756051.68	29756051.77	0.1725	0.1053
Mercury	76758-01-27 14:10 G	29756369.97	29756370.09	29756370.22	0.1783	0.1081

Mercury	76759-02-18 15:22 G	29756757.08	29756757.14	29756757.19	0.1751	0.1554
Mercury	76766-08-05 13:56 G	29759482.05	29759482.08	29759482.11	0.1719	0.1636
Mercury	76767-06-19 14:24 G	29759799.95	29759800.10	29759800.26	0.1791	0.0047
Mercury	76768-07-11 00:15 G	29760187.41	29760187.51	29760187.62	0.1744	0.0894
Mercury	76776-11-08 13:56 G	29763229.96	29763230.08	29763230.21	0.1798	0.1054
Mercury	76777-12-01 09:22 G	29763617.77	29763617.89	29763618.01	0.1738	0.0247
Mercury	76787-04-23 18:44 G	29767048.16	29767048.28	29767048.40	0.1731	0.0380
Venus	76790-05-08 20:39 G	29768159.21	29768159.36	29768159.50	0.1648	0.0845
Mercury	76796-09-13 04:05 G	29770478.58	29770478.67	29770478.77	0.1725	0.0985
Mercury	76797-07-28 14:39 G	29770797.00	29770797.11	29770797.23	0.1783	0.1189
Mercury	76798-08-19 15:22 G	29771184.10	29771184.14	29771184.18	0.1751	0.1632
Mercury	76806-02-03 13:41 G	29773909.03	29773909.07	29773909.12	0.1719	0.1569
Mercury	76806-12-18 15:08 G	29774226.98	29774227.13	29774227.29	0.1790	0.0171
Mercury	76808-01-10 00:15 G	29774614.40	29774614.51	29774614.61	0.1744	0.0960
Mercury	76816-05-09 14:39 G	29777656.98	29777657.11	29777657.24	0.1798	0.0932
Mercury	76817-06-01 09:22 G	29778044.77	29778044.89	29778045.01	0.1738	0.0320
Venus	76819-07-31 04:34 G	29778834.52	29778834.69	29778834.86	0.1879	0.0549
Venus	76822-05-07 15:08 G	29779846.02	29779846.13	29779846.24	0.1642	0.1263
Mercury	76826-10-22 18:44 G	29781475.16	29781475.28	29781475.40	0.1731	0.0307
Moon	76832-01-16 04:05 G	29783386.48	29783386.67	29783386.87	0.1609	0.0377
Earth	76832-01-16 09:36 G	29783386.71	29783386.90	29783387.08	0.1609	0.0263 *
Mercury	76836-03-14 04:05 G	29784905.57	29784905.67	29784905.77	0.1725	0.0910
Mercury	76837-01-26 15:22 G	29785224.04	29785224.14	29785224.24	0.1783	0.1305
Mercury	76838-02-17 15:22 G	29785611.12	29785611.14	29785611.16	0.1751	0.1707
Mercury	76845-08-04 13:56 G	29788336.02	29788336.08	29788336.13	0.1719	0.1495
Mercury	76846-06-18 15:22 G	29788653.99	29788654.14	29788654.30	0.1791	0.0270
Mercury	76847-07-11 00:15 G	29789041.41	29789041.51	29789041.61	0.1744	0.1039
Mercury	76855-11-08 15:22 G	29792084.00	29792084.14	29792084.28	0.1798	0.0807
Venus	76856-03-05 08:24 G	29792201.72	29792201.85	29792201.98	0.1651	0.1067
Mercury	76856-11-30 09:22 G	29792471.77	29792471.89	29792472.00	0.1738	0.0392

Mercury	76866-04-22 18:29 G	29795902.15	29795902.27	29795902.39	0.1731	0.0240
Mercury	76875-09-13 04:05 G	29799332.57	29799332.67	29799332.78	0.1725	0.0837
Mercury	76876-07-27 15:51 G	29799651.07	29799651.16	29799651.25	0.1783	0.1411
Mercury	76885-02-02 13:41 G	29802763.01	29802763.07	29802763.14	0.1719	0.1422
Venus	76885-05-27 08:24 G	29802876.71	29802876.85	29802876.98	0.1876	0.1216
Mercury	76885-12-17 16:20 G	29803081.02	29803081.18	29803081.33	0.1790	0.0394
Mercury	76887-01-09 00:15 G	29803468.42	29803468.51	29803468.60	0.1744	0.1113
Venus	76888-03-04 02:53 G	29803888.49	29803888.62	29803888.76	0.1644	0.1038
Mercury	76895-05-09 15:51 G	29806511.02	29806511.16	29806511.31	0.1798	0.0692
Mercury	76896-05-31 09:22 G	29806898.77	29806898.89	29806899.01	0.1738	0.0467
Mercury	76905-10-22 18:29 G	29810329.15	29810329.27	29810329.40	0.1731	0.0174
Mercury	76915-03-15 04:05 G	29813759.56	29813759.67	29813759.78	0.1725	0.0767
Mercury	76916-01-27 16:20 G	29814078.11	29814078.18	29814078.26	0.1783	0.1523
Venus	76922-01-01 19:56 G	29816244.23	29816244.33	29816244.43	0.1653	0.1308
Mercury	76924-08-04 13:41 G	29817190.00	29817190.07	29817190.14	0.1719	0.1352
Mercury	76925-06-18 16:48 G	29817508.05	29817508.20	29817508.35	0.1790	0.0512
Mercury	76926-07-11 00:15 G	29817895.42	29817895.51	29817895.60	0.1744	0.1182
Mercury	76934-11-08 16:20 G	29820938.04	29820938.18	29820938.33	0.1798	0.0577
Mercury	76935-12-01 09:22 G	29821325.77	29821325.89	29821326.00	0.1738	0.0540
Mercury	76944-03-30 15:36 G	29824368.10	29824368.15	29824368.20	0.1805	0.1696
Mercury	76945-04-22 18:44 G	29824756.16	29824756.28	29824756.40	0.1731	0.0097
Venus	76953-12-31 14:53 G	29827930.97	29827931.12	29827931.27	0.1646	0.0814
Mercury	76954-09-13 04:05 G	29828186.56	29828186.67	29828186.78	0.1725	0.0693
Mercury	76955-07-28 16:48 G	29828505.15	29828505.20	29828505.27	0.1783	0.1635
Mercury	76964-02-03 13:41 G	29831616.99	29831617.07	29831617.15	0.1719	0.1280
Mercury	76964-12-17 17:17 G	29831935.07	29831935.22	29831935.36	0.1791	0.0613
Mercury	76966-01-09 00:15 G	29832322.42	29832322.51	29832322.59	0.1744	0.1256
Mercury	76974-05-09 17:17 G	29835365.06	29835365.22	29835365.37	0.1798	0.0452
Mercury	76975-06-01 09:22 G	29835752.77	29835752.89	29835753.00	0.1737	0.0611
Earth	76981-07-22 09:36 G	29837995.74	29837995.90	29837996.07	0.1918	0.1048

Moon	76981-07-22 16:20 G	29837996.00	29837996.18	29837996.36	0.1918	0.1089	*
Mercury	76983-09-29 16:20 G	29838795.10	29838795.18	29838795.25	0.1805	0.1577	
Mercury	76984-10-21 18:29 G	29839183.15	29839183.27	29839183.39	0.1731	0.0021	
Venus	76987-10-30 07:41 G	29840286.76	29840286.82	29840286.89	0.1655	0.1536	
Mercury	76994-03-14 04:05 G	29842613.56	29842613.67	29842613.78	0.1725	0.0619	
Mercury	76995-01-26 17:32 G	29842932.20	29842932.23	29842932.26	0.1783	0.1743	

78TH MILLENNIUM CE

This is a list of transits visible from Mars in the 78th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	77003-08-05 13:41 G		29846043.99	29846044.07	29846044.15	0.1719	0.1206	
Mercury	77004-06-18 17:46 G		29846362.10	29846362.24	29846362.39	0.1791	0.0732	
Mercury	77005-07-11 00:15 G		29846749.44	29846749.51	29846749.59	0.1744	0.1335	
Mercury	77013-11-08 17:32 G		29849792.08	29849792.23	29849792.39	0.1798	0.0342	
Mercury	77014-12-01 09:22 G		29850179.77	29850179.89	29850180.00	0.1737	0.0685	
Venus	77019-10-30 02:53 G		29851973.45	29851973.62	29851973.78	0.1648	0.0590	
Mercury	77023-03-31 16:48 G		29853222.11	29853222.20	29853222.29	0.1805	0.1459	
Mercury	77024-04-22 18:29 G		29853610.15	29853610.27	29853610.40	0.1731	0.0088	
Mercury	77033-09-13 04:05 G		29857040.55	29857040.67	29857040.78	0.1725	0.0556	
Earth	77037-01-16 14:39 G		29858261.95	29858262.11	29858262.26	0.1608	0.0925	
Moon	77037-01-16 19:56 G		29858262.19	29858262.33	29858262.46	0.1608	0.1037	*
Mercury	77043-02-03 13:41 G		29860470.98	29860471.07	29860471.16	0.1719	0.1139	
Mercury	77043-12-18 18:29 G		29860789.14	29860789.27	29860789.41	0.1790	0.0852	

Mercury	77045-01-09 00:15 G	29861176.43	29861176.51	29861176.58	0.1744	0.1399
Venus	77049-01-20 11:46 G	29862648.86	29862648.99	29862649.11	0.1879	0.1327
Mercury	77052-06-25 23:32 G	29863901.47	29863901.48	29863901.49	0.1713	0.1701
Mercury	77053-05-09 18:15 G	29864219.11	29864219.26	29864219.42	0.1798	0.0220
Mercury	77054-06-01 09:22 G	29864606.78	29864606.89	29864607.00	0.1738	0.0759
Mercury	77062-09-29 17:32 G	29867649.12	29867649.23	29867649.33	0.1805	0.1333
Mercury	77063-10-22 18:29 G	29868037.15	29868037.27	29868037.39	0.1731	0.0140
Mercury	77073-03-14 04:05 G	29871467.55	29871467.67	29871467.78	0.1725	0.0480
Mercury	77082-08-04 13:41 G	29874897.98	29874898.07	29874898.16	0.1719	0.1065
Mercury	77083-06-18 18:58 G	29875216.16	29875216.29	29875216.42	0.1791	0.0948
Mercury	77084-07-10 00:15 G	29875603.45	29875603.51	29875603.57	0.1744	0.1477
Venus	77085-08-26 14:39 G	29876015.94	29876016.11	29876016.28	0.1650	0.0362
Mercury	77091-12-25 23:17 G	29878328.44	29878328.47	29878328.51	0.1713	0.1639
Mercury	77092-11-07 18:58 G	29878646.13	29878646.29	29878646.45	0.1798	0.0096
Mercury	77093-11-30 09:22 G	29879033.78	29879033.89	29879033.99	0.1737	0.0827
Mercury	77102-03-31 18:00 G	29882076.14	29882076.25	29882076.37	0.1805	0.1212
Mercury	77103-04-23 18:29 G	29882464.15	29882464.27	29882464.39	0.1731	0.0197
Mercury	77112-09-13 04:05 G	29885894.55	29885894.67	29885894.79	0.1725	0.0405
Venus	77114-11-18 15:08 G	29886690.97	29886691.13	29886691.30	0.1877	0.0639
Moon	77116-01-20 13:41 G	29887118.97	29887119.07	29887119.18	0.1608	0.1258
Earth	77116-01-20 15:36 G	29887119.02	29887119.15	29887119.29	0.1608	0.1095 *
Mercury	77122-02-03 13:41 G	29889324.97	29889325.07	29889325.16	0.1719	0.0995
Mercury	77122-12-18 19:41 G	29889643.19	29889643.32	29889643.44	0.1791	0.1070
Mercury	77124-01-10 00:15 G	29890030.46	29890030.51	29890030.57	0.1744	0.1550
Mercury	77131-06-26 23:32 G	29892755.43	29892755.48	29892755.52	0.1713	0.1563
Mercury	77132-05-09 19:27 G	29893073.15	29893073.31	29893073.46	0.1798	0.0028
Mercury	77133-06-01 09:22 G	29893460.78	29893460.89	29893460.99	0.1737	0.0903
Mercury	77141-09-29 18:29 G	29896503.15	29896503.27	29896503.40	0.1806	0.1101
Mercury	77142-10-22 18:29 G	29896891.15	29896891.27	29896891.39	0.1731	0.0273
Venus	77151-06-25 02:24 G	29900058.43	29900058.60	29900058.77	0.1652	0.0133

Mercury	77152-03-14 03:51 G	29900321.54	29900321.66	29900321.78	0.1725	0.0341
Mercury	77161-08-04 13:41 G	29903751.97	29903752.07	29903752.17	0.1719	0.0926
Mercury	77162-06-18 20:10 G	29904070.23	29904070.34	29904070.46	0.1790	0.1183
Mercury	77163-07-11 00:15 G	29904457.46	29904457.51	29904457.55	0.1744	0.1617
Mercury	77170-12-25 23:32 G	29907182.42	29907182.48	29907182.53	0.1713	0.1493
Mercury	77171-11-08 19:56 G	29907500.18	29907500.33	29907500.49	0.1798	0.0133
Mercury	77172-11-30 09:22 G	29907887.79	29907887.89	29907887.99	0.1738	0.0973
Venus	77180-09-14 18:15 G	29910733.09	29910733.26	29910733.44	0.1873	0.0057
Mercury	77181-03-30 19:27 G	29910930.17	29910930.31	29910930.44	0.1805	0.0971
Mercury	77182-04-22 18:29 G	29911318.15	29911318.27	29911318.39	0.1731	0.0348
Mercury	77191-09-13 03:51 G	29914748.55	29914748.66	29914748.78	0.1725	0.0271
Mercury	77201-02-02 13:27 G	29918178.96	29918179.06	29918179.17	0.1719	0.0857
Mercury	77201-12-17 20:39 G	29918497.25	29918497.36	29918497.47	0.1791	0.1282
Mercury	77203-01-09 00:15 G	29918884.48	29918884.51	29918884.54	0.1744	0.1691
Mercury	77210-06-25 23:17 G	29921609.41	29921609.47	29921609.54	0.1713	0.1426
Mercury	77211-05-09 20:53 G	29921927.21	29921927.37	29921927.52	0.1798	0.0257
Mercury	77212-05-31 09:22 G	29922314.79	29922314.89	29922314.98	0.1737	0.1044
Venus	77217-04-21 14:10 G	29924100.91	29924101.09	29924101.26	0.1654	0.0102
Mercury	77220-09-28 19:56 G	29925357.19	29925357.33	29925357.47	0.1805	0.0856
Mercury	77221-10-21 18:29 G	29925745.15	29925745.27	29925745.39	0.1731	0.0411
Mercury	77231-03-14 04:05 G	29929175.55	29929175.67	29929175.79	0.1725	0.0202
Mercury	77240-08-03 13:27 G	29932605.96	29932606.06	29932606.17	0.1719	0.0785
Mercury	77241-06-17 21:22 G	29932924.29	29932924.39	29932924.48	0.1791	0.1399
Venus	77246-07-12 21:22 G	29934775.23	29934775.39	29934775.55	0.1870	0.0744
Mercury	77249-12-24 23:17 G	29936036.40	29936036.47	29936036.54	0.1713	0.1355
Mercury	77250-11-07 21:08 G	29936354.23	29936354.38	29936354.53	0.1798	0.0354
Mercury	77251-11-30 09:22 G	29936741.79	29936741.89	29936741.98	0.1737	0.1116
Mercury	77260-03-29 20:24 G	29939784.21	29939784.35	29939784.50	0.1806	0.0740
Mercury	77261-04-21 18:29 G	29940172.16	29940172.27	29940172.39	0.1731	0.0487
Moon	77265-07-22 20:24 G	29941725.24	29941725.35	29941725.45	0.1919	0.1613

Earth	77265-07-23 05:32 G	29941725.59	29941725.73	29941725.87	0.1919	0.1391
Mercury	77270-09-12 03:51 G	29943602.54	29943602.66	29943602.78	0.1725	0.0127
Mercury	77280-02-02 13:27 G	29947032.95	29947033.06	29947033.17	0.1719	0.0715
Mercury	77280-12-16 21:51 G	29947351.33	29947351.41	29947351.49	0.1790	0.1513
Venus	77283-02-17 01:41 G	29948143.40	29948143.57	29948143.74	0.1657	0.0331
Mercury	77289-06-24 23:17 G	29950463.40	29950463.47	29950463.55	0.1713	0.1282
Mercury	77290-05-08 21:51 G	29950781.26	29950781.41	29950781.56	0.1798	0.0472
Mercury	77291-05-31 09:22 G	29951168.80	29951168.89	29951168.98	0.1737	0.1190
Mercury	77299-09-28 21:08 G	29954211.23	29954211.38	29954211.53	0.1805	0.0618
Mercury	77300-10-21 18:29 G	29954599.16	29954599.27	29954599.39	0.1731	0.0557
Mercury	77309-02-18 19:56 G	29957641.29	29957641.33	29957641.36	0.1813	0.1761
Mercury	77310-03-14 03:51 G	29958029.54	29958029.66	29958029.78	0.1725	0.0064
Venus	77312-05-10 01:12 G	29958817.43	29958817.55	29958817.67	0.1866	0.1386
Mercury	77319-08-04 13:27 G	29961459.95	29961460.06	29961460.17	0.1718	0.0645
Mercury	77320-06-17 22:20 G	29961778.36	29961778.43	29961778.49	0.1791	0.1610
Earth	77321-01-19 21:36 G	29961994.21	29961994.40	29961994.59	0.1607	0.0071
Moon	77321-01-20 00:58 G	29961994.34	29961994.54	29961994.74	0.1607	0.0207 *
Mercury	77328-12-24 23:17 G	29964890.38	29964890.47	29964890.55	0.1712	0.1221
Mercury	77329-11-07 22:34 G	29965208.29	29965208.44	29965208.59	0.1798	0.0593
Mercury	77330-11-30 09:08 G	29965595.80	29965595.88	29965595.97	0.1737	0.1256
Mercury	77339-03-30 21:51 G	29968638.26	29968638.41	29968638.56	0.1805	0.0501
Mercury	77340-04-21 18:29 G	29969026.16	29969026.27	29969026.38	0.1731	0.0626
Mercury	77348-08-19 20:39 G	29972068.29	29972068.36	29972068.43	0.1813	0.1633
Venus	77348-12-15 13:12 G	29972185.89	29972186.05	29972186.21	0.1659	0.0574
Mercury	77349-09-12 03:51 G	29972456.54	29972456.66	29972456.78	0.1725	0.0051
Mercury	77359-02-02 13:27 G	29975886.95	29975887.06	29975887.18	0.1718	0.0573
Mercury	77359-12-17 23:03 G	29976205.42	29976205.46	29976205.50	0.1791	0.1727
Mercury	77368-06-24 23:17 G	29979317.38	29979317.47	29979317.56	0.1712	0.1144
Mercury	77369-05-08 22:48 G	29979635.31	29979635.45	29979635.60	0.1798	0.0696
Mercury	77370-05-31 09:22 G	29980022.81	29980022.89	29980022.96	0.1737	0.1330

Mercury	77377-11-15 09:08 G	29982747.88	29982747.88	29982747.89	0.1706	0.1700
Mercury	77378-09-28 22:20 G	29983065.28	29983065.43	29983065.58	0.1806	0.0388
Mercury	77379-10-21 18:29 G	29983453.16	29983453.27	29983453.38	0.1731	0.0698
Venus	77380-12-14 08:39 G	29983872.81	29983872.86	29983872.91	0.1652	0.1567
Mercury	77388-02-18 21:22 G	29986495.31	29986495.39	29986495.48	0.1812	0.1499
Mercury	77389-03-13 03:51 G	29986883.54	29986883.66	29986883.78	0.1724	0.0085
Mercury	77398-08-03 13:27 G	29990313.95	29990314.06	29990314.18	0.1719	0.0503
Mercury	77407-12-25 23:17 G	29993744.38	29993744.47	29993744.56	0.1712	0.1075
Mercury	77408-11-07 23:32 G	29994062.34	29994062.48	29994062.62	0.1798	0.0809
Mercury	77409-11-30 09:22 G	29994449.82	29994449.89	29994449.96	0.1737	0.1401
Venus	77410-03-08 01:27 G	29994547.52	29994547.56	29994547.60	0.1874	0.1806
Venus	77414-10-14 00:58 G	29996228.39	29996228.54	29996228.69	0.1662	0.0802
Mercury	77417-05-17 09:08 G	29997174.85	29997174.88	29997174.92	0.1707	0.1628
Mercury	77418-03-30 23:03 G	29997492.31	29997492.46	29997492.62	0.1805	0.0262
Mercury	77419-04-22 18:29 G	29997880.16	29997880.27	29997880.38	0.1731	0.0772
Mercury	77427-08-20 21:36 G	30000922.31	30000922.40	30000922.51	0.1813	0.1401
Mercury	77428-09-12 03:51 G	30001310.54	30001310.66	30001310.78	0.1725	0.0158
Mercury	77438-02-02 13:27 G	30004740.94	30004741.06	30004741.18	0.1718	0.0435
Venus	77446-10-12 20:24 G	30007915.25	30007915.35	30007915.45	0.1654	0.1341
Mercury	77447-06-25 23:03 G	30008171.37	30008171.46	30008171.56	0.1712	0.1011
Mercury	77448-05-09 00:15 G	30008489.38	30008489.51	30008489.65	0.1798	0.0935
Mercury	77449-05-31 09:22 G	30008876.83	30008876.89	30008876.95	0.1737	0.1470
Mercury	77456-11-15 09:08 G	30011601.84	30011601.88	30011601.93	0.1707	0.1559
Mercury	77457-09-28 23:32 G	30011919.32	30011919.48	30011919.64	0.1805	0.0153
Mercury	77458-10-21 18:29 G	30012307.16	30012307.27	30012307.37	0.1731	0.0837
Mercury	77467-02-18 22:34 G	30015349.33	30015349.44	30015349.55	0.1813	0.1267
Mercury	77468-03-13 03:51 G	30015737.54	30015737.66	30015737.78	0.1725	0.0235
Venus	77476-01-03 04:34 G	30018589.55	30018589.69	30018589.83	0.1870	0.1120
Mercury	77477-08-03 13:27 G	30019167.94	30019168.06	30019168.18	0.1718	0.0363
Venus	77480-08-10 12:15 G	30020270.88	30020271.01	30020271.15	0.1664	0.1050

Mercury	77486-12-24 23:17 G	30022598.37	30022598.47	30022598.57	0.1712	0.0939
Mercury	77487-11-08 00:44 G	30022916.40	30022916.53	30022916.66	0.1798	0.1029
Mercury	77488-11-29 09:22 G	30023303.83	30023303.89	30023303.94	0.1737	0.1541
Mercury	77496-05-16 09:08 G	30026028.82	30026028.88	30026028.93	0.1706	0.1492
Mercury	77497-03-30 00:15 G	30026346.35	30026346.51	30026346.67	0.1806	0.0035
Mercury	77498-04-21 18:29 G	30026734.17	30026734.27	30026734.37	0.1731	0.0910
Mercury	77506-08-20 23:17 G	30029776.35	30029776.47	30029776.59	0.1812	0.1141
Mercury	77507-09-13 03:51 G	30030164.54	30030164.66	30030164.78	0.1724	0.0296
Venus	77512-08-10 08:10 G	30031957.71	30031957.84	30031957.96	0.1656	0.1112
Mercury	77517-02-02 13:27 G	30033594.94	30033595.06	30033595.18	0.1719	0.0294
Moon	77526-01-21 01:27 G	30036869.43	30036869.56	30036869.70	0.1607	0.1078
Earth	77526-01-21 04:20 G	30036869.56	30036869.68	30036869.80	0.1607	0.1222 *
Mercury	77526-06-25 23:17 G	30037025.36	30037025.47	30037025.57	0.1712	0.0867
Mercury	77527-05-10 01:27 G	30037343.44	30037343.56	30037343.68	0.1798	0.1145
Mercury	77528-05-31 09:22 G	30037730.85	30037730.89	30037730.93	0.1737	0.1616
Mercury	77535-11-16 09:08 G	30040455.81	30040455.88	30040455.94	0.1706	0.1423
Mercury	77536-09-29 00:44 G	30040773.38	30040773.53	30040773.69	0.1805	0.0098
Mercury	77537-10-21 18:29 G	30041161.17	30041161.27	30041161.37	0.1731	0.0981
Venus	77541-10-31 08:24 G	30042631.68	30042631.85	30042632.02	0.1867	0.0465
Mercury	77546-02-18 23:46 G	30044203.36	30044203.49	30044203.62	0.1813	0.1036
Venus	77546-06-08 23:32 G	30044313.38	30044313.48	30044313.59	0.1667	0.1296
Mercury	77547-03-14 03:51 G	30044591.54	30044591.66	30044591.78	0.1724	0.0369
Mercury	77556-08-03 13:27 G	30048021.94	30048022.06	30048022.18	0.1718	0.0225
Mercury	77565-12-24 23:03 G	30051452.35	30051452.46	30051452.57	0.1712	0.0805
Mercury	77566-11-08 02:10 G	30051770.48	30051770.59	30051770.70	0.1798	0.1265
Mercury	77567-11-30 09:22 G	30052157.86	30052157.89	30052157.92	0.1737	0.1679
Mercury	77575-05-17 09:08 G	30054882.81	30054882.88	30054882.95	0.1707	0.1351
Mercury	77576-03-30 01:27 G	30055200.41	30055200.56	30055200.72	0.1805	0.0198
Mercury	77577-04-21 18:29 G	30055588.17	30055588.27	30055588.37	0.1731	0.1049
Venus	77578-06-07 19:56 G	30056000.18	30056000.33	30056000.47	0.1659	0.0883

Mercury	77585-08-20 00:29 G	30058630.39	30058630.52	30058630.66	0.1813	0.0910
Mercury	77586-09-12 03:51 G	30059018.55	30059018.66	30059018.78	0.1724	0.0442
Mercury	77596-02-02 13:27 G	30062448.94	30062449.06	30062449.18	0.1718	0.0158
Moon	77605-01-22 23:03 G	30065726.29	30065726.46	30065726.65	0.1607	0.0497
Earth	77605-01-23 05:17 G	30065726.56	30065726.72	30065726.88	0.1607	0.0805 *
Mercury	77605-06-24 23:17 G	30065879.36	30065879.47	30065879.57	0.1712	0.0732
Mercury	77606-05-09 02:24 G	30066197.50	30066197.60	30066197.70	0.1798	0.1361
Venus	77607-08-28 12:00 G	30066673.82	30066674.00	30066674.17	0.1863	0.0194
Venus	77612-04-05 11:17 G	30068355.90	30068355.97	30068356.03	0.1669	0.1542
Mercury	77614-11-15 09:08 G	30069309.80	30069309.88	30069309.95	0.1706	0.1289
Mercury	77615-09-29 02:10 G	30069627.43	30069627.59	30069627.74	0.1806	0.0312
Mercury	77616-10-20 18:29 G	30070015.18	30070015.27	30070015.36	0.1731	0.1120
Mercury	77625-02-18 01:12 G	30073057.41	30073057.55	30073057.70	0.1812	0.0782
Mercury	77626-03-13 03:51 G	30073445.54	30073445.66	30073445.77	0.1724	0.0505
Moon	77628-07-28 11:17 G	30074313.87	30074313.97	30074314.07	0.1920	0.1609
Mercury	77635-08-03 13:27 G	30076875.94	30076876.06	30076876.18	0.1718	0.0085
Venus	77644-04-04 07:27 G	30080042.65	30080042.81	30080042.97	0.1661	0.0649
Mercury	77644-12-23 23:03 G	30080306.35	30080306.46	30080306.57	0.1712	0.0662
Mercury	77645-11-07 03:08 G	30080624.54	30080624.63	30080624.72	0.1798	0.1474
Mercury	77654-05-16 09:08 G	30083736.80	30083736.88	30083736.96	0.1706	0.1217
Mercury	77655-03-30 02:39 G	30084054.46	30084054.61	30084054.77	0.1805	0.0432
Mercury	77656-04-20 18:29 G	30084442.18	30084442.27	30084442.36	0.1731	0.1192
Mercury	77664-08-19 01:41 G	30087484.42	30087484.57	30087484.71	0.1813	0.0683
Mercury	77665-09-11 03:51 G	30087872.55	30087872.66	30087872.78	0.1724	0.0577
Venus	77673-06-24 15:36 G	30090715.99	30090716.15	30090716.31	0.1860	0.0849
Mercury	77674-01-09 00:15 G	30090914.51	30090914.51	30090914.52	0.1820	0.1818
Mercury	77675-02-01 13:27 G	30091302.94	30091303.06	30091303.18	0.1718	0.0031
Mercury	77684-06-23 23:03 G	30094733.35	30094733.46	30094733.57	0.1712	0.0595
Mercury	77685-05-08 03:51 G	30095051.59	30095051.66	30095051.73	0.1798	0.1597
Mercury	77693-11-14 09:08 G	30098163.79	30098163.88	30098163.96	0.1706	0.1148

Mercury	77694-09-28 03:22 G	30098481.49	30098481.64	30098481.79	0.1805	0.0537
Mercury	77695-10-20 18:29 G	30098869.19	30098869.27	30098869.35	0.1731	0.1258
Mercury	77703-04-07 19:12 G	30101594.29	30101594.30	30101594.31	0.1701	0.1686
Mercury	77704-02-19 02:24 G	30101911.45	30101911.60	30101911.76	0.1813	0.0555
Mercury	77705-03-13 03:51 G	30102299.55	30102299.66	30102299.78	0.1724	0.0651
Venus	77710-01-31 18:58 G	30104085.12	30104085.29	30104085.46	0.1664	0.0417
Mercury	77713-07-11 00:44 G	30105341.48	30105341.53	30105341.59	0.1820	0.1708
Mercury	77714-08-03 13:27 G	30105729.94	30105730.06	30105730.18	0.1718	0.0055
Mercury	77723-12-24 23:03 G	30109160.35	30109160.46	30109160.58	0.1712	0.0526
Mercury	77724-11-07 04:05 G	30109478.62	30109478.67	30109478.73	0.1798	0.1686
Mercury	77733-05-16 08:53 G	30112590.78	30112590.87	30112590.97	0.1706	0.1084
Mercury	77734-03-30 04:05 G	30112908.52	30112908.67	30112908.81	0.1806	0.0654
Mercury	77735-04-21 18:29 G	30113296.20	30113296.27	30113296.35	0.1731	0.1331
Venus	77739-04-22 19:56 G	30114758.22	30114758.33	30114758.43	0.1856	0.1462
Mercury	77742-10-06 18:58 G	30116021.26	30116021.29	30116021.33	0.1701	0.1623
Mercury	77743-08-20 03:08 G	30116338.48	30116338.63	30116338.79	0.1812	0.0432
Mercury	77744-09-11 03:51 G	30116726.55	30116726.66	30116726.77	0.1724	0.0712
Mercury	77753-01-09 01:41 G	30119768.49	30119768.57	30119768.64	0.1820	0.1582
Mercury	77754-02-01 13:27 G	30120156.94	30120157.06	30120157.18	0.1718	0.0122
Mercury	77763-06-24 23:03 G	30123587.35	30123587.46	30123587.58	0.1712	0.0456
Mercury	77772-11-14 08:53 G	30127017.78	30127017.87	30127017.97	0.1706	0.1015
Mercury	77773-09-28 04:34 G	30127335.55	30127335.69	30127335.83	0.1805	0.0765
Mercury	77774-10-20 18:29 G	30127723.20	30127723.27	30127723.34	0.1730	0.1400
Venus	77775-11-29 06:29 G	30128127.60	30128127.77	30128127.94	0.1666	0.0174
Mercury	77782-04-06 19:12 G	30130448.25	30130448.30	30130448.34	0.1700	0.1553
Mercury	77783-02-18 03:36 G	30130765.50	30130765.65	30130765.81	0.1813	0.0328
Mercury	77784-03-12 03:51 G	30131153.55	30131153.66	30131153.77	0.1724	0.0786
Mercury	77792-07-10 02:24 G	30134195.50	30134195.60	30134195.69	0.1820	0.1454
Mercury	77793-08-02 13:27 G	30134583.94	30134584.06	30134584.18	0.1718	0.0190
Mercury	77802-12-24 23:03 G	30138014.34	30138014.46	30138014.57	0.1712	0.0393

Earth	77810-01-24 12:00 G	30140601.82	30140602.00	30140602.18	0.1607	0.0331
Moon	77810-01-24 18:15 G	30140602.07	30140602.26	30140602.44	0.1607	0.0043 *
Mercury	77812-05-16 09:08 G	30141444.78	30141444.88	30141444.98	0.1706	0.0943
Mercury	77813-03-30 05:17 G	30141762.58	30141762.72	30141762.85	0.1805	0.0878
Mercury	77814-04-21 18:29 G	30142150.21	30142150.27	30142150.34	0.1731	0.1470
Mercury	77821-10-06 18:58 G	30144875.24	30144875.29	30144875.35	0.1700	0.1486
Mercury	77822-08-20 04:20 G	30145192.53	30145192.68	30145192.84	0.1813	0.0208
Mercury	77823-09-12 03:51 G	30145580.56	30145580.66	30145580.77	0.1724	0.0858
Mercury	77832-01-10 02:53 G	30148622.51	30148622.62	30148622.73	0.1820	0.1342
Mercury	77833-02-01 13:27 G	30149010.94	30149011.06	30149011.18	0.1718	0.0259
Venus	77837-02-17 19:27 G	30150488.23	30150488.31	30150488.39	0.1864	0.1662
Venus	77841-09-26 18:00 G	30152170.08	30152170.25	30152170.43	0.1669	0.0064
Mercury	77842-06-24 23:03 G	30152441.34	30152441.46	30152441.58	0.1712	0.0320
Mercury	77851-11-15 08:53 G	30155871.77	30155871.87	30155871.97	0.1706	0.0881
Mercury	77852-09-28 05:46 G	30156189.61	30156189.74	30156189.87	0.1806	0.0989
Mercury	77853-10-20 18:29 G	30156577.22	30156577.27	30156577.33	0.1730	0.1538
Mercury	77861-04-06 18:58 G	30159302.23	30159302.29	30159302.36	0.1701	0.1419
Mercury	77862-02-18 05:17 G	30159619.56	30159619.72	30159619.87	0.1812	0.0095
Mercury	77863-03-13 03:51 G	30160007.56	30160007.66	30160007.76	0.1724	0.0918
Mercury	77871-07-11 03:36 G	30163049.53	30163049.65	30163049.77	0.1820	0.1223
Mercury	77872-08-02 13:27 G	30163437.94	30163438.06	30163438.18	0.1718	0.0329
Mercury	77881-12-23 23:03 G	30166868.34	30166868.46	30166868.58	0.1712	0.0251
Moon	77889-01-26 14:24 G	30169459.04	30169459.10	30169459.15	0.1606	0.1510
Mercury	77891-05-16 08:53 G	30170298.77	30170298.87	30170298.98	0.1706	0.0811
Mercury	77892-03-29 06:29 G	30170616.65	30170616.77	30170616.89	0.1805	0.1101
Mercury	77893-04-20 18:44 G	30171004.23	30171004.28	30171004.32	0.1730	0.1609
Mercury	77900-10-06 18:58 G	30173729.22	30173729.29	30173729.36	0.1700	0.1353
Mercury	77901-08-20 05:32 G	30174046.57	30174046.73	30174046.89	0.1813	0.0025
Mercury	77902-09-12 03:51 G	30174434.57	30174434.66	30174434.76	0.1724	0.0993
Venus	77902-12-16 23:03 G	30174530.32	30174530.46	30174530.61	0.1861	0.1015

Venus	77907-07-26 05:03 G	30176212.55	30176212.71	30176212.88	0.1671	0.0317
Mercury	77911-01-10 04:34 G	30177476.56	30177476.69	30177476.81	0.1820	0.1088
Mercury	77912-02-02 13:27 G	30177864.94	30177865.06	30177865.18	0.1718	0.0393
Earth	77912-07-30 11:32 G	30178043.78	30178043.98	30178044.18	0.1921	0.0302
Moon	77912-07-30 21:22 G	30178044.19	30178044.39	30178044.60	0.1921	0.0256
Mercury	77921-06-24 23:03 G	30181295.34	30181295.46	30181295.58	0.1712	0.0187
Mercury	77930-11-15 08:53 G	30184725.77	30184725.87	30184725.98	0.1706	0.0744
Mercury	77931-09-29 06:58 G	30185043.68	30185043.79	30185043.91	0.1805	0.1208
Mercury	77932-10-20 18:44 G	30185431.25	30185431.28	30185431.30	0.1731	0.1676
Mercury	77940-04-06 18:58 G	30188156.22	30188156.29	30188156.37	0.1700	0.1283
Mercury	77941-02-18 06:29 G	30188473.61	30188473.77	30188473.93	0.1813	0.0148
Mercury	77942-03-13 04:05 G	30188861.57	30188861.67	30188861.76	0.1724	0.1064
Mercury	77950-07-11 04:48 G	30191903.57	30191903.70	30191903.83	0.1820	0.0986
Mercury	77951-08-03 13:27 G	30192291.94	30192292.06	30192292.17	0.1718	0.0464
Mercury	77960-12-23 23:03 G	30195722.34	30195722.46	30195722.58	0.1712	0.0118
Venus	77968-10-13 03:36 G	30198572.47	30198572.65	30198572.82	0.1857	0.0391
Mercury	77970-05-16 08:53 G	30199152.76	30199152.87	30199152.98	0.1706	0.0678
Mercury	77971-03-30 07:41 G	30199470.72	30199470.82	30199470.93	0.1805	0.1326
Venus	77973-05-22 16:34 G	30200255.03	30200255.19	30200255.35	0.1674	0.0560
Mercury	77979-10-06 18:58 G	30202583.21	30202583.29	30202583.37	0.1700	0.1218
Mercury	77980-08-19 06:58 G	30202900.64	30202900.79	30202900.95	0.1812	0.0265
Mercury	77981-09-11 03:51 G	30203288.57	30203288.66	30203288.75	0.1724	0.1123
Mercury	77990-01-09 05:32 G	30206330.60	30206330.73	30206330.87	0.1820	0.0864
Mercury	77991-02-01 13:27 G	30206718.94	30206719.06	30206719.17	0.1718	0.0531
Mercury	78000-06-23 23:03 G	30210149.34	30210149.46	30210149.58	0.1712	0.0055

79TH MILLENNIUM CE

This is a list of transits visible from Mars in the 79th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	78005-05-21 13:12	G	30211942.03	30211942.05	30211942.08	0.1665	0.1641	
Mercury	78009-11-14 08:53	G	30213579.76	30213579.87	30213579.98	0.1706	0.0609	
Mercury	78010-09-28 08:24	G	30213897.75	30213897.85	30213897.94	0.1805	0.1429	
Earth	78015-01-24 19:27	G	30215477.23	30215477.31	30215477.39	0.1607	0.1432	
Mercury	78019-04-06 18:58	G	30217010.20	30217010.29	30217010.38	0.1700	0.1152	
Mercury	78020-02-18 07:27	G	30217327.66	30217327.81	30217327.97	0.1813	0.0367	
Mercury	78021-03-12 04:05	G	30217715.58	30217715.67	30217715.75	0.1724	0.1198	
Mercury	78028-08-27 05:03	G	30220440.70	30220440.71	30220440.72	0.1695	0.1681	
Mercury	78029-07-10 06:29	G	30220757.62	30220757.77	30220757.91	0.1820	0.0736	
Mercury	78030-08-02 13:27	G	30221145.95	30221146.06	30221146.17	0.1718	0.0597	
Venus	78034-08-10 07:27	G	30222614.64	30222614.81	30222614.98	0.1853	0.0236	
Venus	78039-03-20 03:51	G	30224297.51	30224297.66	30224297.81	0.1676	0.0812	
Mercury	78039-12-23 23:03	G	30224576.34	30224576.46	30224576.58	0.1712	0.0037	
Mercury	78049-05-15 08:53	G	30228006.76	30228006.87	30228006.99	0.1706	0.0543	
Mercury	78050-03-29 08:53	G	30228324.79	30228324.87	30228324.95	0.1805	0.1538	
Mercury	78058-10-05 18:58	G	30231437.20	30231437.29	30231437.38	0.1700	0.1085	
Mercury	78059-08-19 08:24	G	30231754.69	30231754.85	30231755.00	0.1813	0.0485	
Mercury	78060-09-10 04:05	G	30232142.59	30232142.67	30232142.75	0.1724	0.1267	
Mercury	78068-02-26 05:03	G	30234867.68	30234867.71	30234867.75	0.1695	0.1612	
Mercury	78069-01-08 06:58	G	30235184.64	30235184.79	30235184.94	0.1820	0.0630	
Mercury	78070-01-31 13:27	G	30235572.95	30235573.06	30235573.17	0.1718	0.0665	
Venus	78071-03-19 00:29	G	30235984.43	30235984.52	30235984.62	0.1668	0.1402	

Mercury	78078-05-31 05:03 G	30238614.68	30238614.71	30238614.74	0.1828	0.1794
Mercury	78079-06-23 23:03 G	30239003.34	30239003.46	30239003.58	0.1712	0.0093
Mercury	78088-11-13 08:53 G	30242433.75	30242433.87	30242433.98	0.1706	0.0480
Mercury	78089-09-27 09:36 G	30242751.84	30242751.90	30242751.96	0.1805	0.1648
Earth	78094-01-26 20:10 G	30244334.17	30244334.34	30244334.52	0.1606	0.0568
Moon	78094-01-26 20:24 G	30244334.18	30244334.35	30244334.53	0.1606	0.0756 *
Mercury	78098-04-05 18:58 G	30245864.19	30245864.29	30245864.38	0.1700	0.1018
Mercury	78099-02-17 08:53 G	30246181.73	30246181.87	30246182.02	0.1812	0.0603
Mercury	78100-03-12 03:51 G	30246569.59	30246569.66	30246569.74	0.1724	0.1327
Venus	78100-06-07 11:17 G	30246656.82	30246656.97	30246657.13	0.1850	0.0868
Venus	78105-01-15 14:39 G	30248339.98	30248340.11	30248340.24	0.1679	0.1075
Mercury	78107-08-28 05:03 G	30249294.67	30249294.71	30249294.76	0.1695	0.1545
Mercury	78108-07-10 07:41 G	30249611.67	30249611.82	30249611.97	0.1820	0.0512
Mercury	78109-08-02 13:27 G	30249999.95	30250000.06	30250000.17	0.1718	0.0736
Mercury	78117-11-30 05:46 G	30253041.68	30253041.74	30253041.80	0.1827	0.1669
Mercury	78118-12-23 23:03 G	30253430.34	30253430.46	30253430.58	0.1712	0.0153
Mercury	78128-05-15 08:53 G	30256860.76	30256860.87	30256860.99	0.1706	0.0409
Mercury	78129-03-29 10:05 G	30257178.89	30257178.92	30257178.96	0.1805	0.1754
Venus	78137-01-14 12:00 G	30260026.88	30260027.00	30260027.13	0.1671	0.1169
Mercury	78137-10-05 18:58 G	30260291.19	30260291.29	30260291.39	0.1700	0.0955
Mercury	78138-08-19 09:22 G	30260608.75	30260608.89	30260609.04	0.1813	0.0700
Mercury	78139-09-11 04:05 G	30260996.60	30260996.67	30260996.74	0.1724	0.1399
Mercury	78147-02-26 05:03 G	30263721.65	30263721.71	30263721.76	0.1695	0.1484
Mercury	78148-01-09 08:24 G	30264038.70	30264038.85	30264039.01	0.1820	0.0384
Mercury	78149-01-31 13:27 G	30264426.95	30264427.06	30264427.16	0.1718	0.0797
Mercury	78157-05-31 06:29 G	30267468.68	30267468.77	30267468.85	0.1827	0.1552
Mercury	78158-06-23 23:03 G	30267857.34	30267857.46	30267857.58	0.1712	0.0219
Venus	78166-04-04 16:05 G	30270699.06	30270699.17	30270699.28	0.1846	0.1449
Mercury	78167-11-14 08:53 G	30271287.75	30271287.87	30271287.99	0.1706	0.0342
Venus	78170-11-13 01:56 G	30272382.48	30272382.58	30272382.69	0.1682	0.1332

Mercury	78177-04-05 18:58 G	30274718.19	30274718.29	30274718.39	0.1700	0.0887
Mercury	78178-02-17 10:20 G	30275035.79	30275035.93	30275036.07	0.1813	0.0821
Mercury	78179-03-12 04:05 G	30275423.61	30275423.67	30275423.73	0.1724	0.1468
Mercury	78186-08-27 05:03 G	30278148.65	30278148.71	30278148.77	0.1694	0.1416
Mercury	78187-07-10 08:53 G	30278465.71	30278465.87	30278466.03	0.1820	0.0286
Mercury	78188-08-01 13:27 G	30278853.95	30278854.06	30278854.16	0.1718	0.0867
Mercury	78196-11-29 06:58 G	30281895.70	30281895.79	30281895.89	0.1828	0.1434
Mercury	78197-12-22 23:03 G	30282284.34	30282284.46	30282284.58	0.1712	0.0285
Venus	78202-11-12 23:17 G	30284069.33	30284069.47	30284069.62	0.1673	0.0920
Mercury	78207-05-16 08:53 G	30285714.75	30285714.87	30285714.99	0.1706	0.0280
Mercury	78216-10-05 18:58 G	30289145.18	30289145.29	30289145.39	0.1700	0.0824
Mercury	78217-08-19 10:48 G	30289462.82	30289462.95	30289463.09	0.1812	0.0928
Mercury	78218-09-11 03:51 G	30289850.61	30289850.66	30289850.72	0.1724	0.1528
Mercury	78226-02-26 05:03 G	30292575.64	30292575.71	30292575.78	0.1694	0.1349
Mercury	78227-01-09 09:36 G	30292892.74	30292892.90	30292893.06	0.1820	0.0165
Mercury	78228-02-01 13:27 G	30293280.96	30293281.06	30293281.16	0.1718	0.0934
Mercury	78236-05-31 07:41 G	30296322.71	30296322.82	30296322.93	0.1827	0.1312
Venus	78236-09-10 12:58 G	30296424.99	30296425.04	30296425.10	0.1685	0.1595
Mercury	78237-06-23 23:03 G	30296711.34	30296711.46	30296711.58	0.1712	0.0355
Mercury	78246-11-14 08:53 G	30300141.75	30300141.87	30300141.99	0.1706	0.0212
Mercury	78256-04-05 18:58 G	30303572.18	30303572.29	30303572.39	0.1700	0.0760
Mercury	78257-02-17 11:17 G	30303889.85	30303889.97	30303890.10	0.1813	0.1033
Mercury	78258-03-12 04:05 G	30304277.63	30304277.67	30304277.71	0.1724	0.1599
Venus	78264-01-31 14:53 G	30306429.03	30306429.12	30306429.20	0.1854	0.1594
Mercury	78265-08-27 05:03 G	30307002.63	30307002.71	30307002.78	0.1694	0.1290
Mercury	78266-07-10 10:34 G	30307319.78	30307319.94	30307320.09	0.1820	0.0067
Mercury	78267-08-02 13:27 G	30307707.96	30307708.06	30307708.16	0.1718	0.0997
Venus	78268-09-09 10:48 G	30308111.79	30308111.95	30308112.10	0.1676	0.0680
Mercury	78275-11-30 08:24 G	30310749.73	30310749.85	30310749.97	0.1827	0.1194
Mercury	78276-12-22 23:03 G	30311138.34	30311138.46	30311138.58	0.1712	0.0416

Mercury	78286-05-15 08:53 G	30314568.75	30314568.87	30314568.99	0.1706	0.0144
Mercury	78295-10-05 18:44 G	30317999.18	30317999.28	30317999.39	0.1700	0.0693
Mercury	78296-08-18 12:00 G	30318316.88	30318317.00	30318317.12	0.1813	0.1147
Mercury	78297-09-10 04:05 G	30318704.64	30318704.67	30318704.70	0.1724	0.1667
Moon	78299-01-28 02:24 G	30319209.45	30319209.60	30319209.76	0.1607	0.0767
Earth	78299-01-28 03:22 G	30319209.47	30319209.64	30319209.82	0.1607	0.0541 *
Mercury	78305-02-26 05:03 G	30321429.63	30321429.71	30321429.79	0.1694	0.1221
Mercury	78306-01-09 10:48 G	30321746.80	30321746.95	30321747.11	0.1820	0.0071
Mercury	78307-02-01 13:27 G	30322134.96	30322135.06	30322135.15	0.1718	0.1064
Mercury	78315-06-01 09:08 G	30325176.75	30325176.88	30325177.01	0.1828	0.1078
Mercury	78316-06-23 23:03 G	30325565.35	30325565.46	30325565.58	0.1712	0.0484
Mercury	78325-11-14 08:53 G	30328995.75	30328995.87	30328995.99	0.1706	0.0100
Venus	78329-11-28 18:58 G	30330471.14	30330471.29	30330471.44	0.1850	0.0974
Venus	78334-07-08 21:36 G	30332154.23	30332154.40	30332154.57	0.1679	0.0420
Mercury	78335-04-06 18:44 G	30332426.17	30332426.28	30332426.40	0.1700	0.0628
Mercury	78336-02-18 12:44 G	30332743.92	30332744.03	30332744.14	0.1812	0.1258
Mercury	78344-08-27 05:03 G	30335856.62	30335856.71	30335856.79	0.1694	0.1156
Mercury	78345-07-10 11:32 G	30336173.82	30336173.98	30336174.14	0.1820	0.0176
Mercury	78346-08-02 13:27 G	30336561.97	30336562.06	30336562.15	0.1718	0.1134
Mercury	78354-01-17 15:08 G	30339287.12	30339287.13	30339287.15	0.1689	0.1672
Mercury	78354-11-30 09:51 G	30339603.77	30339603.91	30339604.04	0.1827	0.0960
Mercury	78355-12-23 23:03 G	30339992.35	30339992.46	30339992.57	0.1712	0.0549
Mercury	78365-05-15 08:53 G	30343422.75	30343422.87	30343422.99	0.1706	0.0019
Mercury	78374-10-05 18:44 G	30346853.17	30346853.28	30346853.40	0.1700	0.0564
Mercury	78375-08-19 13:12 G	30347170.95	30347171.05	30347171.15	0.1813	0.1355
Moon	78378-01-30 22:20 G	30348066.40	30348066.43	30348066.47	0.1607	0.1568
Earth	78378-01-31 04:20 G	30348066.61	30348066.68	30348066.76	0.1607	0.1456
Mercury	78384-02-26 04:48 G	30350283.61	30350283.70	30350283.79	0.1694	0.1096
Mercury	78385-01-08 12:29 G	30350600.86	30350601.02	30350601.17	0.1820	0.0301
Mercury	78386-01-31 13:27 G	30350988.97	30350989.06	30350989.14	0.1717	0.1192

Mercury	78393-07-18 15:22 G	30353714.10	30353714.14	30353714.17	0.1689	0.1606
Mercury	78394-05-31 10:34 G	30354030.79	30354030.94	30354031.08	0.1827	0.0846
Mercury	78395-06-23 23:03 G	30354419.35	30354419.46	30354419.57	0.1712	0.0614
Venus	78395-09-25 23:32 G	30354513.31	30354513.48	30354513.65	0.1847	0.0372
Venus	78400-05-05 08:39 G	30356196.69	30356196.86	30356197.04	0.1682	0.0170
Mercury	78404-11-13 08:53 G	30357849.75	30357849.87	30357849.99	0.1706	0.0052
Mercury	78414-04-05 18:44 G	30361280.17	30361280.28	30361280.40	0.1700	0.0497
Mercury	78415-02-17 13:56 G	30361597.99	30361598.08	30361598.17	0.1812	0.1470
Mercury	78423-08-27 04:48 G	30364710.61	30364710.70	30364710.80	0.1694	0.1031
Mercury	78424-07-09 12:44 G	30365027.88	30365028.03	30365028.18	0.1820	0.0392
Mercury	78425-08-01 13:27 G	30365415.98	30365416.06	30365416.14	0.1718	0.1262
Mercury	78433-01-16 15:08 G	30368141.08	30368141.13	30368141.17	0.1689	0.1547
Mercury	78433-11-29 11:17 G	30368457.82	30368457.97	30368458.11	0.1828	0.0729
Mercury	78434-12-22 23:03 G	30368846.35	30368846.46	30368846.57	0.1711	0.0678
Mercury	78444-05-14 08:39 G	30372276.74	30372276.86	30372276.98	0.1706	0.0124
Mercury	78453-10-04 18:44 G	30375707.17	30375707.28	30375707.40	0.1700	0.0433
Mercury	78454-08-18 14:24 G	30376025.03	30376025.10	30376025.18	0.1812	0.1573
Venus	78461-07-23 03:51 G	30378555.49	30378555.66	30378555.83	0.1843	0.0225
Mercury	78463-02-25 04:48 G	30379137.61	30379137.70	30379137.80	0.1694	0.0965
Mercury	78464-01-08 13:27 G	30379454.91	30379455.06	30379455.22	0.1820	0.0515
Mercury	78465-01-30 13:27 G	30379842.99	30379843.06	30379843.14	0.1718	0.1328
Venus	78466-03-02 19:27 G	30380239.14	30380239.31	30380239.49	0.1684	0.0108
Mercury	78472-07-17 15:08 G	30382568.08	30382568.13	30382568.19	0.1689	0.1479
Mercury	78473-05-30 11:46 G	30382884.84	30382884.99	30382885.14	0.1827	0.0614
Mercury	78474-06-22 23:03 G	30383273.35	30383273.46	30383273.57	0.1712	0.0746
Mercury	78482-10-20 09:22 G	30386314.86	30386314.89	30386314.91	0.1835	0.1801
Mercury	78483-11-13 08:53 G	30386703.75	30386703.87	30386703.99	0.1706	0.0185
Mercury	78493-04-04 18:44 G	30390134.16	30390134.28	30390134.40	0.1700	0.0371
Mercury	78494-02-16 15:08 G	30390452.07	30390452.13	30390452.19	0.1813	0.1676
Mercury	78502-08-27 04:48 G	30393564.60	30393564.70	30393564.80	0.1694	0.0903

Mercury	78503-07-10 14:24 G	30393881.95	30393882.10	30393882.24	0.1820	0.0631
Moon	78504-01-29 11:32 G	30394084.89	30394084.98	30394085.07	0.1608	0.1443
Mercury	78504-08-01 13:27 G	30394269.99	30394270.06	30394270.13	0.1717	0.1388
Mercury	78512-01-17 15:08 G	30396995.07	30396995.13	30396995.19	0.1689	0.1417
Mercury	78512-11-29 12:29 G	30397311.86	30397312.02	30397312.17	0.1827	0.0503
Mercury	78513-12-22 23:03 G	30397700.35	30397700.46	30397700.56	0.1712	0.0807
Mercury	78522-04-21 10:05 G	30400741.86	30400741.92	30400741.99	0.1835	0.1670
Mercury	78523-05-15 08:53 G	30401130.75	30401130.87	30401130.99	0.1706	0.0247
Venus	78527-05-21 07:56 G	30402597.68	30402597.83	30402597.99	0.1839	0.0833
Venus	78531-12-30 06:15 G	30404281.59	30404281.76	30404281.93	0.1688	0.0372
Mercury	78532-10-04 18:44 G	30404561.16	30404561.28	30404561.40	0.1700	0.0306
Mercury	78533-08-18 15:51 G	30404879.13	30404879.16	30404879.18	0.1813	0.1785
Mercury	78542-02-25 04:48 G	30407991.60	30407991.70	30407991.80	0.1694	0.0839
Mercury	78543-01-08 14:39 G	30408308.97	30408309.11	30408309.26	0.1820	0.0723
Mercury	78544-01-31 13:27 G	30408697.00	30408697.06	30408697.12	0.1718	0.1454
Mercury	78551-07-18 15:08 G	30411422.06	30411422.13	30411422.19	0.1688	0.1358
Mercury	78552-05-30 13:12 G	30411738.89	30411739.05	30411739.20	0.1828	0.0385
Mercury	78553-06-22 23:03 G	30412127.36	30412127.46	30412127.56	0.1711	0.0872
Moon	78559-08-05 10:34 G	30414361.75	30414361.94	30414362.13	0.1920	0.0441
Earth	78559-08-05 19:27 G	30414362.14	30414362.31	30414362.49	0.1920	0.0946
Mercury	78561-10-20 10:48 G	30415168.87	30415168.95	30415169.03	0.1835	0.1551
Mercury	78562-11-13 08:39 G	30415557.74	30415557.86	30415557.98	0.1705	0.0302
Mercury	78572-04-04 18:44 G	30418988.16	30418988.28	30418988.40	0.1700	0.0240
Mercury	78581-08-26 04:48 G	30422418.59	30422418.70	30422418.81	0.1694	0.0774
Mercury	78582-07-09 15:22 G	30422736.00	30422736.14	30422736.28	0.1820	0.0836
Earth	78583-01-31 11:03 G	30422941.78	30422941.96	30422942.15	0.1608	0.0334
Moon	78583-01-31 17:17 G	30422942.04	30422942.22	30422942.41	0.1608	0.0233 *
Mercury	78583-08-01 13:27 G	30423124.01	30423124.06	30423124.12	0.1718	0.1523
Mercury	78591-01-16 15:08 G	30425849.05	30425849.13	30425849.20	0.1689	0.1294
Mercury	78591-11-29 13:41 G	30426165.91	30426166.07	30426166.23	0.1827	0.0277

Mercury	78592-12-21 23:03 G	30426554.36	30426554.46	30426554.56	0.1711	0.0936
Venus	78593-03-17 12:58 G	30426639.93	30426640.04	30426640.16	0.1835	0.1389
Venus	78597-10-26 17:17 G	30428324.06	30428324.22	30428324.38	0.1690	0.0636
Mercury	78601-04-21 11:17 G	30429595.88	30429595.97	30429596.07	0.1835	0.1445
Mercury	78602-05-15 08:53 G	30429984.75	30429984.87	30429984.98	0.1706	0.0375
Mercury	78611-10-05 18:44 G	30433415.16	30433415.28	30433415.40	0.1700	0.0189
Mercury	78621-02-25 04:48 G	30436845.59	30436845.70	30436845.80	0.1694	0.0715
Mercury	78622-01-08 16:05 G	30437163.04	30437163.17	30437163.31	0.1820	0.0957
Mercury	78623-01-31 13:27 G	30437551.01	30437551.06	30437551.10	0.1717	0.1578
Venus	78629-10-26 15:22 G	30440011.10	30440011.14	30440011.17	0.1681	0.1642
Mercury	78630-07-18 15:08 G	30440276.05	30440276.13	30440276.21	0.1689	0.1229
Mercury	78631-05-31 14:24 G	30440592.94	30440593.10	30440593.26	0.1827	0.0164
Mercury	78632-06-22 23:03 G	30440981.36	30440981.46	30440981.56	0.1712	0.1001
Mercury	78640-10-20 12:15 G	30444022.90	30444023.01	30444023.12	0.1835	0.1323
Mercury	78641-11-13 08:39 G	30444411.75	30444411.86	30444411.98	0.1705	0.0437
Mercury	78651-04-05 18:44 G	30447842.16	30447842.28	30447842.40	0.1700	0.0121
Mercury	78660-08-26 04:48 G	30451272.59	30451272.70	30451272.81	0.1694	0.0651
Mercury	78661-07-09 16:34 G	30451590.06	30451590.19	30451590.32	0.1820	0.1044
Mercury	78662-08-01 13:27 G	30451978.03	30451978.06	30451978.09	0.1717	0.1648
Venus	78663-08-25 03:51 G	30452366.52	30452366.66	30452366.81	0.1693	0.0911
Mercury	78670-01-16 14:53 G	30454703.04	30454703.12	30454703.20	0.1688	0.1172
Mercury	78670-11-29 15:08 G	30455019.97	30455020.13	30455020.29	0.1828	0.0048
Mercury	78671-12-22 23:03 G	30455408.36	30455408.46	30455408.55	0.1711	0.1061
Mercury	78679-06-09 01:27 G	30458133.54	30458133.56	30458133.57	0.1683	0.1669
Mercury	78680-04-20 12:58 G	30458449.92	30458450.04	30458450.16	0.1834	0.1203
Mercury	78681-05-14 08:39 G	30458838.74	30458838.86	30458838.98	0.1705	0.0492
Mercury	78690-10-04 18:44 G	30462269.16	30462269.28	30462269.40	0.1700	0.0063
Venus	78691-01-13 10:34 G	30462369.85	30462369.94	30462370.04	0.1843	0.1564
Venus	78695-08-24 02:10 G	30464053.50	30464053.59	30464053.69	0.1684	0.1394
Mercury	78700-02-25 04:48 G	30465699.58	30465699.70	30465699.81	0.1694	0.0588

Mercury	78701-01-08 17:17 G	30466017.10	30466017.22	30466017.34	0.1820	0.1160
Mercury	78702-01-31 13:27 G	30466405.06	30466405.06	30466405.07	0.1717	0.1711
Mercury	78709-07-18 14:53 G	30469130.03	30469130.12	30469130.21	0.1688	0.1105
Mercury	78710-05-31 15:36 G	30469446.99	30469447.15	30469447.31	0.1827	0.0058
Mercury	78711-06-23 23:03 G	30469835.37	30469835.46	30469835.55	0.1711	0.1127
Mercury	78718-12-09 01:12 G	30472560.52	30472560.55	30472560.58	0.1683	0.1610
Mercury	78719-10-21 13:12 G	30472876.93	30472877.05	30472877.18	0.1835	0.1103
Mercury	78720-11-13 08:39 G	30473265.75	30473265.86	30473265.98	0.1705	0.0559
Venus	78729-06-22 14:39 G	30476408.99	30476409.11	30476409.24	0.1696	0.1183
Mercury	78730-04-05 18:29 G	30476696.15	30476696.27	30476696.39	0.1699	0.0061
Mercury	78739-08-27 04:34 G	30480126.58	30480126.69	30480126.81	0.1694	0.0528
Mercury	78740-07-09 18:00 G	30480444.14	30480444.25	30480444.36	0.1820	0.1270
Mercury	78749-01-16 14:53 G	30483557.03	30483557.12	30483557.21	0.1688	0.1043
Mercury	78749-11-29 16:20 G	30483874.02	30483874.18	30483874.34	0.1827	0.0169
Mercury	78750-12-22 23:03 G	30484262.37	30484262.46	30484262.54	0.1711	0.1189
Venus	78756-11-10 15:22 G	30486411.99	30486412.14	30486412.28	0.1839	0.0969
Mercury	78758-06-09 01:12 G	30486987.51	30486987.55	30486987.60	0.1683	0.1545
Mercury	78759-04-21 14:10 G	30487303.96	30487304.09	30487304.23	0.1835	0.0975
Mercury	78760-05-14 08:39 G	30487692.75	30487692.86	30487692.97	0.1705	0.0625
Venus	78761-06-21 12:58 G	30488095.91	30488096.04	30488096.17	0.1687	0.1124
Mercury	78769-10-04 18:29 G	30491123.15	30491123.27	30491123.39	0.1700	0.0092
Mercury	78779-02-25 04:34 G	30494553.58	30494553.69	30494553.81	0.1694	0.0467
Mercury	78780-01-08 18:15 G	30494871.16	30494871.26	30494871.37	0.1820	0.1362
Moon	78788-02-01 11:03 G	30497816.79	30497816.96	30497817.13	0.1609	0.0682
Earth	78788-02-01 17:46 G	30497817.08	30497817.24	30497817.40	0.1609	0.0791 *
Mercury	78788-07-17 14:53 G	30497984.02	30497984.12	30497984.21	0.1688	0.0986
Mercury	78789-05-30 17:03 G	30498301.05	30498301.21	30498301.37	0.1828	0.0284
Mercury	78790-06-22 23:03 G	30498689.38	30498689.46	30498689.54	0.1711	0.1251
Venus	78795-04-20 01:12 G	30500451.46	30500451.55	30500451.63	0.1700	0.1469
Mercury	78797-12-08 01:12 G	30501414.50	30501414.55	30501414.60	0.1683	0.1485

Mercury	78798-10-20 14:53 G	30501730.98	30501731.12	30501731.26	0.1835	0.0864
Mercury	78799-11-13 08:39 G	30502119.75	30502119.86	30502119.97	0.1705	0.0680
Mercury	78809-04-04 18:44 G	30505550.16	30505550.28	30505550.39	0.1700	0.0151
Mercury	78818-08-26 04:34 G	30508980.58	30508980.69	30508980.81	0.1694	0.0402
Mercury	78819-07-09 18:58 G	30509298.20	30509298.29	30509298.39	0.1820	0.1472
Venus	78822-09-07 19:56 G	30510454.16	30510454.33	30510454.50	0.1836	0.0392
Venus	78827-04-18 23:46 G	30512138.34	30512138.49	30512138.64	0.1690	0.0861
Mercury	78828-01-16 14:53 G	30512411.02	30512411.12	30512411.21	0.1688	0.0923
Mercury	78828-11-28 17:32 G	30512728.07	30512728.23	30512728.38	0.1827	0.0384
Mercury	78829-12-21 23:03 G	30513116.38	30513116.46	30513116.53	0.1711	0.1314
Mercury	78837-06-08 01:12 G	30515841.49	30515841.55	30515841.61	0.1683	0.1425
Mercury	78838-04-20 15:22 G	30516158.00	30516158.14	30516158.29	0.1835	0.0757
Mercury	78839-05-14 08:39 G	30516546.75	30516546.86	30516546.97	0.1705	0.0746
Earth	78843-08-06 12:58 G	30518091.92	30518092.04	30518092.16	0.1918	0.1551
Moon	78843-08-06 21:08 G	30518092.26	30518092.38	30518092.50	0.1918	0.1496
Mercury	78848-10-03 18:29 G	30519977.15	30519977.27	30519977.39	0.1699	0.0194
Mercury	78858-02-24 04:34 G	30523407.57	30523407.69	30523407.81	0.1694	0.0341
Mercury	78859-01-07 19:56 G	30523725.25	30523725.33	30523725.40	0.1820	0.1586
Moon	78867-02-03 15:22 G	30526673.98	30526674.14	30526674.30	0.1608	0.0941
Earth	78867-02-03 18:29 G	30526674.15	30526674.27	30526674.40	0.1608	0.1196 *
Mercury	78867-07-17 14:53 G	30526838.02	30526838.12	30526838.22	0.1688	0.0858
Mercury	78868-05-29 18:15 G	30527155.10	30527155.26	30527155.41	0.1827	0.0495
Mercury	78869-06-21 23:03 G	30527543.39	30527543.46	30527543.53	0.1711	0.1378
Mercury	78876-12-07 01:12 G	30530268.48	30530268.55	30530268.61	0.1683	0.1364
Mercury	78877-10-19 16:05 G	30530585.02	30530585.17	30530585.32	0.1835	0.0640
Mercury	78878-11-12 08:39 G	30530973.75	30530973.86	30530973.97	0.1705	0.0809
Mercury	78887-03-11 13:27 G	30534015.04	30534015.06	30534015.07	0.1842	0.1830
Mercury	78888-04-03 18:29 G	30534404.15	30534404.27	30534404.39	0.1699	0.0260
Venus	78888-07-05 00:44 G	30534496.36	30534496.53	30534496.71	0.1832	0.0179
Venus	78893-02-13 10:20 G	30536180.76	30536180.93	30536181.09	0.1693	0.0586

Mercury	78897-08-25 04:34 G	30537834.57	30537834.69	30537834.81	0.1694	0.0279
Mercury	78898-07-08 20:10 G	30538152.28	30538152.34	30538152.40	0.1820	0.1671
Mercury	78907-01-16 14:39 G	30541265.00	30541265.11	30541265.21	0.1688	0.0804
Mercury	78907-11-29 18:58 G	30541582.14	30541582.29	30541582.44	0.1828	0.0608
Mercury	78908-12-21 22:48 G	30541970.39	30541970.45	30541970.52	0.1711	0.1437
Mercury	78916-06-08 01:12 G	30544695.47	30544695.55	30544695.62	0.1683	0.1301
Mercury	78917-04-20 16:48 G	30545012.05	30545012.20	30545012.35	0.1835	0.0525
Mercury	78918-05-14 08:39 G	30545400.75	30545400.86	30545400.96	0.1705	0.0868
Mercury	78926-09-10 14:10 G	30548442.03	30548442.09	30548442.15	0.1842	0.1710
Mercury	78927-10-04 18:29 G	30548831.15	30548831.27	30548831.39	0.1700	0.0323
Mercury	78937-02-24 04:34 G	30552261.57	30552261.69	30552261.81	0.1694	0.0218
Mercury	78938-01-07 20:53 G	30552579.34	30552579.37	30552579.40	0.1820	0.1783
Mercury	78946-07-17 14:39 G	30555692.01	30555692.11	30555692.22	0.1688	0.0738
Mercury	78947-05-30 19:27 G	30556009.16	30556009.31	30556009.45	0.1827	0.0707
Mercury	78948-06-21 23:03 G	30556397.40	30556397.46	30556397.51	0.1711	0.1502
Venus	78954-05-03 05:03 G	30558538.55	30558538.71	30558538.87	0.1828	0.0762
Mercury	78955-12-08 00:58 G	30559122.46	30559122.54	30559122.62	0.1683	0.1245
Mercury	78956-10-19 17:17 G	30559439.07	30559439.22	30559439.38	0.1835	0.0424
Mercury	78957-11-12 08:39 G	30559827.76	30559827.86	30559827.96	0.1705	0.0931
Venus	78958-12-12 20:53 G	30560223.20	30560223.37	30560223.54	0.1696	0.0308
Mercury	78966-03-11 15:08 G	30562869.05	30562869.13	30562869.21	0.1842	0.1579
Mercury	78967-04-04 18:29 G	30563258.15	30563258.27	30563258.39	0.1699	0.0378
Mercury	78976-08-25 04:34 G	30566688.57	30566688.69	30566688.81	0.1694	0.0163
Mercury	78986-01-15 14:39 G	30570119.00	30570119.11	30570119.22	0.1688	0.0677
Mercury	78986-11-28 19:56 G	30570436.19	30570436.33	30570436.48	0.1828	0.0816
Mercury	78987-12-21 23:03 G	30570824.41	30570824.46	30570824.50	0.1711	0.1563
Mercury	78995-06-08 00:58 G	30573549.46	30573549.54	30573549.63	0.1683	0.1181
Mercury	78996-04-19 18:15 G	30573866.10	30573866.26	30573866.41	0.1835	0.0303
Mercury	78997-05-13 08:39 G	30574254.76	30574254.86	30574254.96	0.1705	0.0995

80TH MILLENNIUM CE

This is a list of transits visible from Mars in the 80th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	79004-10-29 11:32 G		30576979.97	30576979.98	30576979.98	0.1678	0.1672	
Mercury	79005-09-10 15:22 G		30577296.05	30577296.14	30577296.23	0.1842	0.1489	
Mercury	79006-10-04 18:29 G		30577685.15	30577685.27	30577685.39	0.1699	0.0442	
Mercury	79016-02-25 04:34 G		30581115.57	30581115.69	30581115.81	0.1694	0.0105	
Venus	79020-02-29 10:34 G		30582580.82	30582580.94	30582581.06	0.1823	0.1285	
Venus	79024-10-10 07:27 G		30584265.64	30584265.81	30584265.99	0.1699	0.0038	
Mercury	79025-07-17 14:39 G		30584546.00	30584546.11	30584546.22	0.1688	0.0621	
Mercury	79026-05-30 20:53 G		30584863.23	30584863.37	30584863.50	0.1828	0.0931	
Mercury	79027-06-22 23:03 G		30585251.42	30585251.46	30585251.49	0.1711	0.1623	
Mercury	79034-12-08 00:58 G		30587976.45	30587976.54	30587976.63	0.1683	0.1121	
Mercury	79035-10-20 18:44 G		30588293.12	30588293.28	30588293.44	0.1835	0.0197	
Mercury	79036-11-12 08:24 G		30588681.76	30588681.85	30588681.95	0.1705	0.1051	
Mercury	79044-04-29 11:32 G		30591406.95	30591406.98	30591407.01	0.1678	0.1610	
Mercury	79045-03-11 16:20 G		30591723.07	30591723.18	30591723.28	0.1842	0.1363	
Mercury	79046-04-04 18:29 G		30592112.16	30592112.27	30592112.39	0.1699	0.0506	
Mercury	79055-08-26 04:20 G		30595542.56	30595542.68	30595542.80	0.1694	0.0074	
Mercury	79065-01-15 14:39 G		30598973.00	30598973.11	30598973.22	0.1688	0.0557	
Mercury	79065-11-28 21:08 G		30599290.25	30599290.38	30599290.51	0.1827	0.1024	
Mercury	79066-12-21 22:48 G		30599678.44	30599678.45	30599678.47	0.1711	0.1684	
Earth	79072-02-05 00:44 G		30601549.34	30601549.53	30601549.72	0.1610	0.0064	

Moon	79072-02-05 02:10 G	30601549.41	30601549.59	30601549.76	0.1610	0.0281 *
Mercury	79074-06-08 00:58 G	30602403.45	30602403.54	30602403.63	0.1683	0.1062
Mercury	79075-04-20 19:27 G	30602720.15	30602720.31	30602720.47	0.1835	0.0099
Mercury	79076-05-13 08:39 G	30603108.77	30603108.86	30603108.95	0.1705	0.1116
Mercury	79083-10-29 11:17 G	30605833.93	30605833.97	30605834.02	0.1677	0.1555
Mercury	79084-09-09 17:03 G	30606150.09	30606150.21	30606150.33	0.1842	0.1240
Mercury	79085-10-03 18:29 G	30606539.15	30606539.27	30606539.38	0.1699	0.0563
Venus	79090-08-07 17:46 G	30608308.07	30608308.24	30608308.41	0.1702	0.0254
Mercury	79095-02-24 04:20 G	30609969.56	30609969.68	30609969.80	0.1694	0.0058
Mercury	79104-07-17 14:39 G	30613399.99	30613400.11	30613400.22	0.1688	0.0494
Mercury	79105-05-30 21:51 G	30613717.29	30613717.41	30613717.54	0.1828	0.1132
Mercury	79113-12-08 00:58 G	30616830.44	30616830.54	30616830.63	0.1683	0.1001
Mercury	79114-10-20 20:10 G	30617147.18	30617147.34	30617147.49	0.1835	0.0058
Mercury	79115-11-13 08:39 G	30617535.77	30617535.86	30617535.94	0.1705	0.1178
Venus	79117-12-27 07:27 G	30618310.73	30618310.81	30618310.90	0.1832	0.1586
Mercury	79123-04-30 11:17 G	30620260.92	30620260.97	30620261.03	0.1677	0.1493
Mercury	79124-03-11 17:32 G	30620577.10	30620577.23	30620577.35	0.1842	0.1143
Mercury	79125-04-04 18:29 G	30620966.16	30620966.27	30620966.38	0.1699	0.0626
Mercury	79134-08-26 04:20 G	30624396.56	30624396.68	30624396.80	0.1693	0.0094
Mercury	79144-01-16 14:24 G	30627826.99	30627827.10	30627827.22	0.1688	0.0441
Mercury	79144-11-28 22:48 G	30628144.33	30628144.45	30628144.56	0.1828	0.1245
Mercury	79153-06-08 00:58 G	30631257.44	30631257.54	30631257.64	0.1683	0.0939
Mercury	79154-04-20 20:39 G	30631574.20	30631574.36	30631574.52	0.1835	0.0141
Mercury	79155-05-14 08:24 G	30631962.77	30631962.85	30631962.94	0.1705	0.1237
Venus	79156-06-05 04:34 G	30632350.52	30632350.69	30632350.85	0.1705	0.0532
Mercury	79162-10-29 11:17 G	30634687.91	30634687.97	30634688.03	0.1677	0.1432
Mercury	79163-09-10 18:15 G	30635004.13	30635004.26	30635004.39	0.1842	0.1025
Mercury	79164-10-03 18:29 G	30635393.16	30635393.27	30635393.38	0.1699	0.0687
Mercury	79174-02-24 04:20 G	30638823.56	30638823.68	30638823.80	0.1693	0.0149
Mercury	79183-07-17 14:39 G	30642253.99	30642254.11	30642254.22	0.1688	0.0378

Venus	79183-10-24 12:29 G	30642352.87	30642353.02	30642353.16	0.1828	0.1019
Mercury	79184-05-29 23:03 G	30642571.36	30642571.46	30642571.57	0.1827	0.1338
Mercury	79192-12-07 00:44 G	30645684.43	30645684.53	30645684.64	0.1682	0.0886
Mercury	79193-10-19 21:22 G	30646001.23	30646001.39	30646001.55	0.1835	0.0238
Mercury	79194-11-12 08:39 G	30646389.78	30646389.86	30646389.93	0.1705	0.1298
Mercury	79202-04-29 11:17 G	30649114.90	30649114.97	30649115.03	0.1677	0.1374
Mercury	79203-03-11 19:12 G	30649431.16	30649431.30	30649431.44	0.1842	0.0900
Mercury	79204-04-03 18:15 G	30649820.16	30649820.26	30649820.37	0.1699	0.0744
Earth	79206-08-11 21:51 G	30650680.38	30650680.41	30650680.45	0.1918	0.1886
Mercury	79213-08-25 04:20 G	30653250.56	30653250.68	30653250.80	0.1694	0.0210
Venus	79222-04-02 14:39 G	30656392.96	30656393.11	30656393.26	0.1709	0.0825
Mercury	79223-01-15 14:24 G	30656680.99	30656681.10	30656681.22	0.1688	0.0320
Mercury	79223-11-28 23:46 G	30656998.40	30656998.49	30656998.59	0.1828	0.1443
Mercury	79232-06-07 00:44 G	30660111.43	30660111.53	30660111.64	0.1682	0.0823
Mercury	79233-04-19 22:05 G	30660428.26	30660428.42	30660428.58	0.1835	0.0352
Mercury	79234-05-13 08:39 G	30660816.79	30660816.86	30660816.93	0.1705	0.1361
Mercury	79241-10-28 11:17 G	30663541.90	30663541.97	30663542.04	0.1677	0.1314
Mercury	79242-09-09 19:27 G	30663858.16	30663858.31	30663858.45	0.1842	0.0810
Mercury	79243-10-03 18:29 G	30664247.16	30664247.27	30664247.37	0.1699	0.0808
Venus	79249-08-20 17:32 G	30666395.06	30666395.23	30666395.40	0.1824	0.0478
Mercury	79253-02-23 04:20 G	30667677.56	30667677.68	30667677.80	0.1693	0.0266
Venus	79254-04-01 13:56 G	30668080.01	30668080.08	30668080.15	0.1699	0.1543
Mercury	79262-07-16 14:24 G	30671107.98	30671108.10	30671108.22	0.1688	0.0258
Mercury	79263-05-30 00:44 G	30671425.45	30671425.53	30671425.61	0.1827	0.1558
Mercury	79271-12-07 00:44 G	30674538.43	30674538.53	30674538.64	0.1683	0.0763
Mercury	79272-10-18 22:34 G	30674855.29	30674855.44	30674855.60	0.1835	0.0455
Mercury	79273-11-11 08:24 G	30675243.79	30675243.85	30675243.92	0.1705	0.1418
Moon	79277-02-04 06:15 G	30676424.64	30676424.76	30676424.88	0.1613	0.1265
Earth	79277-02-04 07:41 G	30676424.67	30676424.82	30676424.96	0.1613	0.1038 *
Mercury	79281-04-28 11:17 G	30677968.89	30677968.97	30677969.05	0.1677	0.1253

Mercury	79282-03-10 20:24 G	30678285.20	30678285.35	30678285.50	0.1842	0.0686
Mercury	79283-04-03 18:29 G	30678674.16	30678674.27	30678674.37	0.1699	0.0869
Venus	79288-01-29 00:44 G	30680435.40	30680435.53	30680435.66	0.1712	0.1117
Mercury	79292-08-24 04:20 G	30682104.56	30682104.68	30682104.80	0.1693	0.0329
Mercury	79302-01-15 14:24 G	30685534.98	30685535.10	30685535.22	0.1688	0.0198
Mercury	79302-11-29 00:58 G	30685852.47	30685852.54	30685852.61	0.1827	0.1644
Mercury	79311-06-08 00:44 G	30688965.42	30688965.53	30688965.64	0.1682	0.0704
Mercury	79312-04-19 23:17 G	30689282.32	30689282.47	30689282.62	0.1835	0.0562
Mercury	79313-05-13 08:39 G	30689670.80	30689670.86	30689670.92	0.1705	0.1480
Venus	79315-06-18 22:48 G	30690437.27	30690437.45	30690437.63	0.1820	0.0067
Venus	79320-01-29 00:15 G	30692122.40	30692122.51	30692122.63	0.1702	0.1258
Mercury	79320-10-28 11:03 G	30692395.88	30692395.96	30692396.05	0.1677	0.1198
Mercury	79321-09-09 21:08 G	30692712.23	30692712.38	30692712.53	0.1842	0.0568
Mercury	79322-10-03 18:15 G	30693101.16	30693101.26	30693101.36	0.1699	0.0923
Mercury	79331-01-30 17:46 G	30696142.20	30696142.24	30696142.29	0.1849	0.1772
Mercury	79332-02-24 04:20 G	30696531.56	30696531.68	30696531.80	0.1694	0.0388
Mercury	79341-07-16 14:24 G	30699961.98	30699962.10	30699962.22	0.1688	0.0141
Mercury	79342-05-30 01:41 G	30700279.53	30700279.57	30700279.61	0.1828	0.1752
Mercury	79350-12-07 00:44 G	30703392.42	30703392.53	30703392.64	0.1682	0.0643
Mercury	79351-10-20 00:00 G	30703709.35	30703709.50	30703709.65	0.1835	0.0670
Mercury	79352-11-11 08:39 G	30704097.81	30704097.86	30704097.91	0.1705	0.1541
Venus	79353-11-26 10:48 G	30704477.86	30704477.95	30704478.04	0.1716	0.1424
Earth	79356-02-08 07:56 G	30705281.68	30705281.83	30705281.98	0.1611	0.0930
Moon	79356-02-08 12:58 G	30705281.92	30705282.04	30705282.17	0.1611	0.1219 *
Mercury	79360-04-28 11:17 G	30706822.88	30706822.97	30706823.05	0.1677	0.1137
Mercury	79361-03-10 21:36 G	30707139.24	30707139.40	30707139.55	0.1842	0.0474
Mercury	79362-04-03 18:29 G	30707528.17	30707528.27	30707528.36	0.1699	0.0989
Mercury	79369-09-18 21:36 G	30710253.38	30710253.40	30710253.43	0.1672	0.1619
Mercury	79370-07-31 18:44 G	30710569.21	30710569.28	30710569.35	0.1850	0.1653
Mercury	79371-08-25 04:20 G	30710958.56	30710958.68	30710958.79	0.1693	0.0447

Mercury	79381-01-14 14:24 G	30714388.98	30714389.10	30714389.22	0.1688	0.0090
Venus	79381-04-15 03:51 G	30714479.49	30714479.66	30714479.82	0.1816	0.0616
Venus	79385-11-25 10:48 G	30716164.81	30716164.95	30716165.09	0.1705	0.0979
Mercury	79390-06-07 00:44 G	30717819.42	30717819.53	30717819.64	0.1682	0.0582
Mercury	79391-04-20 00:44 G	30718136.38	30718136.53	30718136.67	0.1835	0.0778
Mercury	79392-05-12 08:39 G	30718524.82	30718524.86	30718524.89	0.1705	0.1600
Mercury	79399-10-28 11:03 G	30721249.87	30721249.96	30721250.05	0.1677	0.1078
Mercury	79400-09-09 22:20 G	30721566.27	30721566.43	30721566.59	0.1842	0.0357
Mercury	79401-10-03 18:29 G	30721955.17	30721955.27	30721955.36	0.1699	0.1049
Mercury	79409-03-20 21:51 G	30724680.37	30724680.41	30724680.45	0.1672	0.1557
Mercury	79410-01-30 19:12 G	30724996.22	30724996.30	30724996.39	0.1849	0.1543
Mercury	79411-02-24 04:20 G	30725385.56	30725385.68	30725385.79	0.1693	0.0508
Mercury	79420-07-16 14:24 G	30728815.98	30728816.10	30728816.22	0.1688	0.0026
Mercury	79429-12-07 00:44 G	30732246.41	30732246.53	30732246.64	0.1682	0.0530
Mercury	79430-10-20 01:12 G	30732563.41	30732563.55	30732563.69	0.1835	0.0878
Mercury	79431-11-12 08:39 G	30732951.83	30732951.86	30732951.88	0.1705	0.1659
Mercury	79439-04-29 11:03 G	30735676.87	30735676.96	30735677.06	0.1677	0.1019
Mercury	79440-03-10 23:17 G	30735993.31	30735993.47	30735993.62	0.1842	0.0240
Mercury	79441-04-03 18:15 G	30736382.17	30736382.26	30736382.35	0.1699	0.1103
Venus	79447-02-11 09:36 G	30738521.77	30738521.90	30738522.04	0.1812	0.1108
Mercury	79448-09-18 21:36 G	30739107.35	30739107.40	30739107.45	0.1672	0.1498
Mercury	79449-07-31 19:56 G	30739423.23	30739423.33	30739423.43	0.1849	0.1430
Mercury	79450-08-25 04:20 G	30739812.57	30739812.68	30739812.79	0.1693	0.0569
Venus	79451-09-23 21:08 G	30740207.23	30740207.38	30740207.54	0.1708	0.0696
Mercury	79460-01-15 14:24 G	30743242.98	30743243.10	30743243.22	0.1688	0.0043
Mercury	79469-06-07 00:44 G	30746673.41	30746673.53	30746673.64	0.1682	0.0465
Mercury	79470-04-20 01:56 G	30746990.45	30746990.58	30746990.72	0.1835	0.0990
Mercury	79478-10-28 11:03 G	30750103.87	30750103.96	30750104.06	0.1677	0.0961
Mercury	79479-09-09 23:32 G	30750420.32	30750420.48	30750420.64	0.1842	0.0145
Mercury	79480-10-02 18:15 G	30750809.18	30750809.26	30750809.35	0.1699	0.1167

Mercury	79488-03-19 21:36 G	30753534.34	30753534.40	30753534.46	0.1672	0.1443
Mercury	79489-01-29 20:53 G	30753850.26	30753850.37	30753850.49	0.1849	0.1304
Mercury	79490-02-23 04:20 G	30754239.57	30754239.68	30754239.79	0.1693	0.0625
Moon	79490-08-12 07:41 G	30754409.62	30754409.82	30754410.01	0.1914	0.0721
Earth	79490-08-12 17:32 G	30754410.03	30754410.23	30754410.42	0.1914	0.0459
Mercury	79499-07-16 14:24 G	30757669.98	30757670.10	30757670.22	0.1688	0.0109
Mercury	79508-12-07 00:44 G	30761100.41	30761100.53	30761100.64	0.1682	0.0406
Mercury	79509-10-20 02:39 G	30761417.48	30761417.61	30761417.73	0.1835	0.1089
Venus	79512-12-09 15:22 G	30762564.06	30762564.14	30762564.21	0.1808	0.1613
Venus	79517-07-22 07:12 G	30764249.64	30764249.80	30764249.97	0.1712	0.0405
Mercury	79518-04-29 11:03 G	30764530.86	30764530.96	30764531.06	0.1677	0.0900
Mercury	79519-03-12 00:29 G	30764847.36	30764847.52	30764847.68	0.1842	0.0027
Mercury	79520-04-03 18:29 G	30765236.18	30765236.27	30765236.35	0.1699	0.1228
Mercury	79527-09-19 21:36 G	30767961.34	30767961.40	30767961.47	0.1672	0.1382
Mercury	79528-07-31 21:22 G	30768277.27	30768277.39	30768277.51	0.1849	0.1205
Mercury	79529-08-25 04:20 G	30768666.57	30768666.68	30768666.79	0.1693	0.0688
Mercury	79539-01-15 14:24 G	30772096.98	30772097.10	30772097.22	0.1688	0.0161
Venus	79544-12-09 06:00 G	30774251.69	30774251.75	30774251.81	0.1821	0.1690
Mercury	79548-06-07 00:29 G	30775527.41	30775527.52	30775527.64	0.1682	0.0356
Mercury	79549-04-20 03:22 G	30775844.52	30775844.64	30775844.76	0.1835	0.1197
Mercury	79557-10-28 11:03 G	30778957.86	30778957.96	30778958.06	0.1677	0.0843
Mercury	79558-09-10 01:12 G	30779274.39	30779274.55	30779274.71	0.1842	0.0092
Mercury	79559-10-03 18:15 G	30779663.18	30779663.26	30779663.34	0.1699	0.1280
Moon	79561-02-08 09:36 G	30780156.73	30780156.90	30780157.07	0.1614	0.0468
Earth	79561-02-08 15:22 G	30780156.95	30780157.14	30780157.32	0.1614	0.0166 *
Mercury	79567-03-20 21:36 G	30782388.33	30782388.40	30782388.47	0.1672	0.1322
Mercury	79568-01-30 22:20 G	30782704.30	30782704.43	30782704.56	0.1849	0.1087
Mercury	79569-02-23 04:20 G	30783093.57	30783093.68	30783093.79	0.1693	0.0746
Mercury	79578-07-16 14:24 G	30786523.98	30786524.10	30786524.22	0.1688	0.0222
Venus	79583-05-19 18:00 G	30788292.07	30788292.25	30788292.42	0.1715	0.0128

Mercury	79587-12-07 00:29 G	30789954.41	30789954.52	30789954.64	0.1682	0.0297
Mercury	79588-10-19 03:51 G	30790271.55	30790271.66	30790271.77	0.1835	0.1300
Mercury	79597-04-28 11:03 G	30793384.85	30793384.96	30793385.06	0.1677	0.0785
Mercury	79598-03-11 01:41 G	30793701.41	30793701.57	30793701.73	0.1842	0.0184
Mercury	79599-04-03 18:15 G	30794090.19	30794090.26	30794090.34	0.1699	0.1345
Mercury	79606-09-18 21:36 G	30796815.32	30796815.40	30796815.47	0.1672	0.1269
Mercury	79607-07-31 23:03 G	30797131.32	30797131.46	30797131.60	0.1849	0.0968
Mercury	79608-08-24 04:20 G	30797520.57	30797520.68	30797520.78	0.1693	0.0804
Venus	79610-10-06 11:17 G	30798293.84	30798293.97	30798294.10	0.1816	0.1155
Mercury	79618-01-14 14:10 G	30800950.98	30800951.09	30800951.21	0.1687	0.0284
Mercury	79627-06-07 00:44 G	30804381.41	30804381.53	30804381.64	0.1682	0.0235
Mercury	79628-04-19 04:34 G	30804698.59	30804698.69	30804698.79	0.1835	0.1403
Mercury	79636-10-27 11:03 G	30807811.85	30807811.96	30807812.06	0.1677	0.0726
Mercury	79637-09-09 02:24 G	30808128.44	30808128.60	30808128.76	0.1842	0.0298
Mercury	79638-10-02 18:29 G	30808517.20	30808517.27	30808517.33	0.1699	0.1405
Mercury	79646-03-19 21:36 G	30811242.32	30811242.40	30811242.48	0.1672	0.1207
Mercury	79647-01-29 23:32 G	30811558.34	30811558.48	30811558.63	0.1849	0.0865
Mercury	79648-02-23 04:20 G	30811947.57	30811947.68	30811947.78	0.1693	0.0864
Venus	79649-03-16 03:36 G	30812334.48	30812334.65	30812334.82	0.1719	0.0184
Mercury	79657-07-15 14:24 G	30815377.98	30815378.10	30815378.22	0.1688	0.0338
Mercury	79666-12-06 00:29 G	30818808.40	30818808.52	30818808.64	0.1682	0.0177
Mercury	79667-10-19 05:17 G	30819125.63	30819125.72	30819125.81	0.1835	0.1504
Mercury	79676-04-27 11:03 G	30822238.85	30822238.96	30822239.07	0.1677	0.0668
Venus	79676-08-02 17:17 G	30822336.05	30822336.22	30822336.38	0.1813	0.0648
Mercury	79677-03-10 03:22 G	30822555.48	30822555.64	30822555.79	0.1842	0.0416
Mercury	79678-04-02 18:15 G	30822944.20	30822944.26	30822944.32	0.1699	0.1457
Mercury	79685-09-17 21:36 G	30825669.31	30825669.40	30825669.48	0.1672	0.1149
Mercury	79686-07-31 00:15 G	30825985.37	30825985.51	30825985.66	0.1849	0.0754
Mercury	79687-08-24 04:20 G	30826374.58	30826374.68	30826374.78	0.1693	0.0924
Mercury	79695-02-08 08:10 G	30829099.81	30829099.84	30829099.86	0.1667	0.1619

Mercury	79697-01-13 14:24 G	30829804.98	30829805.10	30829805.21	0.1687	0.0398
Mercury	79706-06-07 00:29 G	30833235.40	30833235.52	30833235.64	0.1682	0.0125
Mercury	79707-04-20 06:00 G	30833552.68	30833552.75	30833552.82	0.1835	0.1609
Venus	79715-01-12 13:41 G	30836376.91	30836377.07	30836377.24	0.1722	0.0480
Mercury	79715-10-28 11:03 G	30836665.85	30836665.96	30836666.07	0.1677	0.0613
Mercury	79716-09-09 03:36 G	30836982.50	30836982.65	30836982.81	0.1842	0.0505
Mercury	79717-10-02 18:15 G	30837371.21	30837371.26	30837371.32	0.1699	0.1522
Mercury	79725-03-19 21:22 G	30840096.30	30840096.39	30840096.48	0.1672	0.1096
Mercury	79726-01-30 01:12 G	30840412.40	30840412.55	30840412.70	0.1849	0.0630
Mercury	79727-02-23 04:20 G	30840801.58	30840801.68	30840801.77	0.1693	0.0979
Mercury	79734-08-10 08:10 G	30843526.80	30843526.84	30843526.88	0.1667	0.1560
Mercury	79735-06-21 21:36 G	30843842.39	30843842.40	30843842.41	0.1856	0.1848
Mercury	79736-07-15 14:24 G	30844231.98	30844232.10	30844232.21	0.1688	0.0457
Venus	79742-05-31 22:48 G	30846378.27	30846378.45	30846378.62	0.1808	0.0136
Mercury	79745-12-06 00:29 G	30847662.40	30847662.52	30847662.64	0.1682	0.0071
Mercury	79746-10-19 06:29 G	30847979.72	30847979.77	30847979.83	0.1835	0.1708
Mercury	79755-04-28 11:03 G	30851092.84	30851092.96	30851093.07	0.1677	0.0553
Mercury	79756-03-10 04:34 G	30851409.54	30851409.69	30851409.84	0.1842	0.0621
Mercury	79757-04-02 18:29 G	30851798.23	30851798.27	30851798.31	0.1699	0.1581
Mercury	79764-09-17 21:22 G	30854523.30	30854523.39	30854523.49	0.1672	0.1036
Mercury	79765-07-31 01:41 G	30854839.42	30854839.57	30854839.72	0.1849	0.0535
Earth	79766-02-08 21:08 G	30855032.27	30855032.38	30855032.49	0.1618	0.1304
Moon	79766-02-09 03:22 G	30855032.49	30855032.64	30855032.80	0.1618	0.0973 *
Mercury	79766-08-24 04:20 G	30855228.58	30855228.68	30855228.77	0.1693	0.1040
Mercury	79774-02-08 08:10 G	30857953.79	30857953.84	30857953.88	0.1667	0.1507
Mercury	79774-12-20 22:20 G	30858269.38	30858269.43	30858269.49	0.1857	0.1737
Mercury	79776-01-14 14:24 G	30858658.98	30858659.10	30858659.21	0.1687	0.0514
Venus	79780-11-08 23:32 G	30860419.33	30860419.48	30860419.64	0.1726	0.0791
Mercury	79785-06-06 00:29 G	30862089.40	30862089.52	30862089.64	0.1682	0.0010
Mercury	79786-04-19 07:27 G	30862406.79	30862406.81	30862406.83	0.1835	0.1815

Mercury	79794-10-27 10:48 G	30865519.84	30865519.95	30865520.07	0.1677	0.0497
Mercury	79795-09-09 05:17 G	30865836.57	30865836.72	30865836.86	0.1842	0.0728
Mercury	79796-10-01 18:15 G	30866225.23	30866225.26	30866225.29	0.1699	0.1633
Mercury	79804-03-19 21:22 G	30868950.30	30868950.39	30868950.49	0.1672	0.0978
Mercury	79805-01-30 02:39 G	30869266.45	30869266.61	30869266.76	0.1849	0.0418
Mercury	79806-02-23 04:20 G	30869655.59	30869655.68	30869655.77	0.1693	0.1098
Venus	79808-03-29 04:20 G	30870420.51	30870420.68	30870420.85	0.1804	0.0382
Venus	79812-11-09 00:29 G	30872106.47	30872106.52	30872106.56	0.1715	0.1653
Mercury	79813-08-10 08:10 G	30872380.78	30872380.84	30872380.89	0.1667	0.1447
Mercury	79814-06-21 23:03 G	30872696.39	30872696.46	30872696.54	0.1856	0.1619
Mercury	79815-07-16 14:24 G	30873085.99	30873086.10	30873086.21	0.1687	0.0574
Mercury	79824-12-06 00:29 G	30876516.40	30876516.52	30876516.64	0.1682	0.0060
Mercury	79834-04-28 10:48 G	30879946.84	30879946.95	30879947.07	0.1677	0.0442
Mercury	79835-03-11 05:46 G	30880263.60	30880263.74	30880263.88	0.1842	0.0824
Mercury	79836-04-02 18:29 G	30880652.26	30880652.27	30880652.27	0.1699	0.1696
Mercury	79843-09-18 21:22 G	30883377.29	30883377.39	30883377.49	0.1672	0.0923
Mercury	79844-07-31 03:22 G	30883693.48	30883693.64	30883693.80	0.1849	0.0301
Earth	79845-02-11 22:48 G	30883889.28	30883889.45	30883889.62	0.1616	0.0714
Moon	79845-02-12 03:08 G	30883889.47	30883889.63	30883889.80	0.1616	0.0599 *
Mercury	79845-08-24 04:20 G	30884082.59	30884082.68	30884082.76	0.1693	0.1154
Venus	79846-09-07 09:22 G	30884461.76	30884461.89	30884462.02	0.1729	0.1101
Mercury	79853-02-08 08:10 G	30886807.77	30886807.84	30886807.90	0.1667	0.1390
Mercury	79853-12-20 23:46 G	30887123.40	30887123.49	30887123.59	0.1856	0.1505
Mercury	79855-01-14 14:10 G	30887512.98	30887513.09	30887513.21	0.1687	0.0628
Mercury	79864-06-06 00:29 G	30890943.40	30890943.52	30890943.64	0.1682	0.0126
Mercury	79873-10-27 10:48 G	30894373.84	30894373.95	30894374.07	0.1677	0.0381
Venus	79874-01-24 10:34 G	30894462.79	30894462.94	30894463.10	0.1800	0.0846
Mercury	79874-09-09 06:29 G	30894690.64	30894690.77	30894690.91	0.1842	0.0936
Venus	79878-09-06 10:34 G	30896148.84	30896148.94	30896149.04	0.1718	0.1360
Mercury	79883-03-19 21:22 G	30897804.29	30897804.39	30897804.49	0.1672	0.0863

Mercury	79884-01-30 03:51 G	30898120.50	30898120.66	30898120.82	0.1849	0.0206
Mercury	79885-02-22 04:20 G	30898509.59	30898509.68	30898509.76	0.1693	0.1213
Mercury	79892-08-09 07:56 G	30901234.76	30901234.83	30901234.90	0.1667	0.1335
Mercury	79893-06-21 00:29 G	30901550.42	30901550.52	30901550.63	0.1857	0.1398
Mercury	79894-07-15 14:24 G	30901939.99	30901940.10	30901940.21	0.1687	0.0688
Mercury	79903-12-07 00:29 G	30905370.40	30905370.52	30905370.64	0.1682	0.0173
Venus	79912-07-05 18:58 G	30908504.19	30908504.29	30908504.38	0.1733	0.1427
Mercury	79913-04-28 10:48 G	30908800.84	30908800.95	30908801.07	0.1677	0.0325
Mercury	79914-03-11 07:27 G	30909117.68	30909117.81	30909117.94	0.1842	0.1044
Mercury	79922-09-18 21:22 G	30912231.29	30912231.39	30912231.49	0.1672	0.0805
Mercury	79923-08-01 04:34 G	30912547.53	30912547.69	30912547.85	0.1849	0.0103
Mercury	79924-08-24 04:20 G	30912936.60	30912936.68	30912936.76	0.1693	0.1273
Mercury	79932-02-09 07:56 G	30915661.76	30915661.83	30915661.91	0.1667	0.1277
Mercury	79932-12-21 01:27 G	30915977.44	30915977.56	30915977.67	0.1856	0.1279
Mercury	79934-01-14 14:24 G	30916366.99	30916367.10	30916367.20	0.1687	0.0746
Venus	79939-11-22 16:48 G	30918505.08	30918505.20	30918505.32	0.1796	0.1323
Mercury	79943-06-07 00:29 G	30919797.40	30919797.52	30919797.64	0.1682	0.0234
Venus	79944-07-04 20:24 G	30920191.22	30920191.35	30920191.49	0.1722	0.1063
Mercury	79952-10-27 10:48 G	30923227.83	30923227.95	30923228.07	0.1677	0.0268
Mercury	79953-09-09 07:41 G	30923544.70	30923544.82	30923544.95	0.1842	0.1134
Mercury	79962-03-19 21:22 G	30926658.28	30926658.39	30926658.49	0.1672	0.0753
Mercury	79963-01-30 05:32 G	30926974.57	30926974.73	30926974.89	0.1849	0.0052
Mercury	79964-02-23 04:20 G	30927363.60	30927363.68	30927363.75	0.1693	0.1325
Mercury	79971-08-10 07:56 G	30930088.75	30930088.83	30930088.91	0.1667	0.1219
Mercury	79972-06-21 02:10 G	30930404.46	30930404.59	30930404.71	0.1856	0.1171
Mercury	79973-07-15 14:10 G	30930793.99	30930794.09	30930794.20	0.1687	0.0804
Mercury	79982-12-06 00:29 G	30934224.40	30934224.52	30934224.64	0.1682	0.0291
Mercury	79992-04-27 10:48 G	30937654.83	30937654.95	30937655.07	0.1677	0.0209
Mercury	79993-03-10 08:39 G	30937971.75	30937971.86	30937971.98	0.1842	0.1247

81ST MILLENNIUM CE

This is a list of transits visible from Mars in the 81st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	80001-09-17 21:22	G	30941085.28	30941085.39	30941085.50	0.1671	0.0692	
Mercury	80002-07-31 06:00	G	30941401.59	30941401.75	30941401.91	0.1849	0.0117	
Mercury	80003-08-24 04:20	G	30941790.61	30941790.68	30941790.75	0.1693	0.1386	
Venus	80005-09-18 23:32	G	30942547.45	30942547.48	30942547.50	0.1792	0.1766	
Venus	80010-05-02 06:44	G	30944233.63	30944233.78	30944233.94	0.1725	0.0772	
Mercury	80011-02-08 07:56	G	30944515.74	30944515.83	30944515.91	0.1666	0.1167	
Mercury	80011-12-21 02:53	G	30944831.49	30944831.62	30944831.75	0.1857	0.1059	
Mercury	80013-01-13 14:24	G	30945220.99	30945221.10	30945221.20	0.1687	0.0859	
Mercury	80020-06-30 18:44	G	30947946.26	30947946.28	30947946.30	0.1662	0.1622	
Mercury	80022-06-06 00:29	G	30948651.40	30948651.52	30948651.63	0.1682	0.0346	
Mercury	80031-10-27 10:48	G	30952081.83	30952081.95	30952082.07	0.1677	0.0153	
Mercury	80032-09-08 09:22	G	30952398.78	30952398.89	30952398.99	0.1842	0.1347	
Venus	80037-09-18 11:46	G	30954234.88	30954234.99	30954235.10	0.1805	0.1365	
Mercury	80041-03-18 21:22	G	30955512.28	30955512.39	30955512.50	0.1671	0.0636	
Mercury	80042-01-29 06:58	G	30955828.63	30955828.79	30955828.94	0.1849	0.0236	
Mercury	80043-02-22 04:20	G	30956217.62	30956217.68	30956217.74	0.1693	0.1443	
Moon	80050-02-12 01:27	G	30958764.36	30958764.56	30958764.75	0.1620	0.0268	
Earth	80050-02-12 04:48	G	30958764.52	30958764.70	30958764.88	0.1620	0.0415	*
Mercury	80050-08-09 07:56	G	30958942.74	30958942.83	30958942.92	0.1667	0.1107	
Mercury	80051-06-21 03:36	G	30959258.51	30959258.65	30959258.79	0.1856	0.0947	

Mercury	80052-07-14 14:24 G	30959648.00	30959648.10	30959648.20	0.1687	0.0918
Mercury	80059-12-30 18:44 G	30962373.24	30962373.28	30962373.31	0.1662	0.1568
Mercury	80061-12-05 00:29 G	30963078.40	30963078.52	30963078.64	0.1682	0.0403
Mercury	80071-04-27 10:48 G	30966508.83	30966508.95	30966509.07	0.1676	0.0096
Mercury	80072-03-09 09:51 G	30966825.82	30966825.91	30966826.01	0.1842	0.1444
Venus	80076-02-27 16:05 G	30968276.01	30968276.17	30968276.34	0.1729	0.0455
Mercury	80080-09-16 21:08 G	30969939.27	30969939.38	30969939.50	0.1671	0.0585
Mercury	80081-07-30 07:41 G	30970255.66	30970255.82	30970255.98	0.1849	0.0345
Mercury	80082-08-23 04:20 G	30970644.62	30970644.68	30970644.73	0.1693	0.1497
Mercury	80090-02-07 07:56 G	30973369.74	30973369.83	30973369.92	0.1667	0.1052
Mercury	80090-12-20 04:20 G	30973685.53	30973685.68	30973685.82	0.1856	0.0839
Mercury	80092-01-13 14:10 G	30974075.00	30974075.09	30974075.19	0.1687	0.0971
Mercury	80099-06-30 18:44 G	30976800.23	30976800.28	30976800.32	0.1662	0.1510
Mercury	80101-06-06 00:29 G	30977505.41	30977505.52	30977505.64	0.1682	0.0462
Venus	80103-07-17 18:15 G	30978277.11	30978277.26	30978277.41	0.1801	0.0885
Mercury	80110-10-27 10:48 G	30980935.83	30980935.95	30980936.07	0.1676	0.0038
Mercury	80111-09-09 10:34 G	30981252.86	30981252.94	30981253.03	0.1842	0.1550
Mercury	80120-03-18 21:22 G	30984366.27	30984366.39	30984366.50	0.1671	0.0528
Mercury	80121-01-29 08:10 G	30984682.68	30984682.84	30984682.99	0.1849	0.0436
Mercury	80122-02-22 04:20 G	30985071.63	30985071.68	30985071.72	0.1693	0.1555
Earth	80129-02-15 06:15 G	30987621.73	30987621.76	30987621.79	0.1618	0.1589
Moon	80129-02-15 10:05 G	30987621.84	30987621.92	30987622.01	0.1618	0.1440
Mercury	80129-08-09 07:56 G	30987796.73	30987796.83	30987796.92	0.1666	0.1000
Mercury	80130-06-21 05:03 G	30988112.56	30988112.71	30988112.86	0.1857	0.0729
Mercury	80131-07-15 14:24 G	30988502.00	30988502.10	30988502.19	0.1687	0.1030
Earth	80137-08-19 03:51 G	30990728.49	30990728.66	30990728.83	0.1909	0.1050
Moon	80137-08-19 12:00 G	30990728.90	30990729.00	30990729.10	0.1909	0.1627
Mercury	80138-12-30 18:29 G	30991227.22	30991227.27	30991227.33	0.1662	0.1458
Mercury	80140-12-05 00:15 G	30991932.40	30991932.51	30991932.63	0.1682	0.0516
Venus	80141-12-26 02:10 G	30992318.42	30992318.59	30992318.76	0.1732	0.0150

Mercury	80150-04-27 10:48 G	30995362.83	30995362.95	30995363.07	0.1677	0.0022
Mercury	80151-03-10 11:17 G	30995679.91	30995679.97	30995680.04	0.1842	0.1651
Mercury	80159-09-17 21:08 G	30998793.27	30998793.38	30998793.50	0.1671	0.0471
Mercury	80160-07-30 08:53 G	30999109.72	30999109.87	30999110.02	0.1849	0.0543
Mercury	80161-08-23 04:20 G	30999498.65	30999498.68	30999498.72	0.1693	0.1615
Mercury	80169-02-07 07:41 G	31002223.73	31002223.82	31002223.92	0.1666	0.0944
Venus	80169-05-14 00:00 G	31002319.33	31002319.50	31002319.67	0.1797	0.0394
Mercury	80169-12-20 05:46 G	31002539.59	31002539.74	31002539.89	0.1856	0.0620
Mercury	80171-01-13 14:10 G	31002929.00	31002929.09	31002929.19	0.1687	0.1086
Mercury	80178-06-30 18:29 G	31005654.21	31005654.27	31005654.34	0.1662	0.1402
Mercury	80179-05-12 01:41 G	31005969.56	31005969.57	31005969.59	0.1863	0.1844
Mercury	80180-06-05 00:29 G	31006359.41	31006359.52	31006359.63	0.1682	0.0573
Mercury	80189-10-26 10:48 G	31009789.83	31009789.95	31009790.07	0.1676	0.0077
Mercury	80190-09-08 11:46 G	31010106.95	31010106.99	31010107.04	0.1842	0.1741
Mercury	80199-03-18 21:08 G	31013220.27	31013220.38	31013220.50	0.1671	0.0415
Mercury	80200-01-29 09:51 G	31013536.76	31013536.91	31013537.06	0.1849	0.0661
Mercury	80201-02-22 04:20 G	31013925.66	31013925.68	31013925.70	0.1693	0.1664
Venus	80207-10-24 11:32 G	31016360.81	31016360.98	31016361.15	0.1736	0.0177
Mercury	80208-08-09 07:56 G	31016650.73	31016650.83	31016650.93	0.1666	0.0885
Mercury	80209-06-21 06:29 G	31016966.61	31016966.77	31016966.92	0.1856	0.0515
Mercury	80210-07-15 14:10 G	31017356.01	31017356.09	31017356.18	0.1687	0.1143
Mercury	80217-12-30 18:29 G	31020081.20	31020081.27	31020081.34	0.1662	0.1346
Mercury	80218-11-11 02:39 G	31020396.55	31020396.61	31020396.67	0.1863	0.1724
Mercury	80219-12-06 00:29 G	31020786.41	31020786.52	31020786.63	0.1682	0.0629
Mercury	80229-04-27 10:48 G	31024216.83	31024216.95	31024217.07	0.1676	0.0131
Venus	80235-03-12 06:00 G	31026361.58	31026361.75	31026361.93	0.1793	0.0092
Mercury	80238-09-17 21:08 G	31027647.27	31027647.38	31027647.50	0.1671	0.0359
Mercury	80239-07-31 10:05 G	31027963.77	31027963.92	31027964.07	0.1849	0.0743
Mercury	80248-02-08 07:41 G	31031077.72	31031077.82	31031077.92	0.1666	0.0835
Mercury	80248-12-20 07:12 G	31031393.64	31031393.80	31031393.96	0.1857	0.0405

Mercury	80250-01-13 14:10 G	31031783.01	31031783.09	31031783.18	0.1687	0.1195
Earth	80255-02-13 10:20 G	31033639.89	31033639.93	31033639.97	0.1624	0.1582
Mercury	80257-06-30 18:29 G	31034508.20	31034508.27	31034508.34	0.1662	0.1290
Mercury	80258-05-12 03:36 G	31034823.57	31034823.65	31034823.73	0.1863	0.1606
Mercury	80259-06-06 00:15 G	31035213.41	31035213.51	31035213.62	0.1682	0.0683
Mercury	80268-10-26 10:48 G	31038643.83	31038643.95	31038644.07	0.1677	0.0187
Venus	80273-08-20 20:53 G	31040403.20	31040403.37	31040403.53	0.1740	0.0502
Mercury	80278-03-18 21:08 G	31042074.26	31042074.38	31042074.50	0.1671	0.0302
Mercury	80279-01-29 11:03 G	31042390.82	31042390.96	31042391.10	0.1849	0.0856
Mercury	80287-08-09 07:41 G	31045504.72	31045504.82	31045504.93	0.1666	0.0776
Mercury	80288-06-20 07:56 G	31045820.67	31045820.83	31045820.98	0.1856	0.0304
Mercury	80289-07-14 14:10 G	31046210.02	31046210.09	31046210.17	0.1687	0.1254
Mercury	80296-12-29 18:29 G	31048935.19	31048935.27	31048935.35	0.1661	0.1238
Mercury	80297-11-10 03:51 G	31049250.57	31049250.66	31049250.76	0.1864	0.1515
Mercury	80298-12-05 00:29 G	31049640.41	31049640.52	31049640.62	0.1682	0.0739
Venus	80301-01-07 12:44 G	31050403.86	31050404.03	31050404.20	0.1788	0.0535
Mercury	80308-04-27 10:48 G	31053070.83	31053070.95	31053071.06	0.1676	0.0243
Mercury	80317-09-17 21:08 G	31056501.26	31056501.38	31056501.49	0.1671	0.0254
Mercury	80318-07-31 11:46 G	31056817.85	31056817.99	31056818.12	0.1849	0.0963
Mercury	80327-02-08 07:41 G	31059931.72	31059931.82	31059931.93	0.1666	0.0721
Mercury	80327-12-21 08:24 G	31060247.69	31060247.85	31060248.01	0.1856	0.0200
Mercury	80329-01-13 14:10 G	31060637.02	31060637.09	31060637.17	0.1687	0.1307
Moon	80334-02-16 08:24 G	31062496.68	31062496.85	31062497.01	0.1622	0.0592
Earth	80334-02-16 11:46 G	31062496.81	31062496.99	31062497.17	0.1622	0.0453 *
Mercury	80336-06-30 18:29 G	31063362.19	31063362.27	31063362.35	0.1661	0.1182
Mercury	80337-05-12 05:03 G	31063677.60	31063677.71	31063677.81	0.1863	0.1390
Mercury	80338-06-06 00:29 G	31064067.41	31064067.52	31064067.62	0.1682	0.0796
Venus	80339-06-19 06:15 G	31064445.61	31064445.76	31064445.91	0.1743	0.0840
Mercury	80345-11-21 05:17 G	31066792.70	31066792.72	31066792.74	0.1657	0.1631
Mercury	80347-10-27 10:34 G	31067497.83	31067497.94	31067498.06	0.1676	0.0301

Mercury	80357-03-18 21:08 G	31070928.26	31070928.38	31070928.50	0.1671	0.0194
Mercury	80358-01-29 12:15 G	31071244.88	31071245.01	31071245.14	0.1849	0.1050
Mercury	80366-08-09 07:41 G	31074358.71	31074358.82	31074358.93	0.1666	0.0670
Venus	80366-11-04 18:58 G	31074446.15	31074446.29	31074446.44	0.1784	0.0995
Mercury	80367-06-21 09:22 G	31074674.73	31074674.89	31074675.05	0.1857	0.0089
Mercury	80368-07-14 14:10 G	31075064.02	31075064.09	31075064.16	0.1687	0.1362
Venus	80371-06-18 08:39 G	31076132.83	31076132.86	31076132.89	0.1732	0.1695
Mercury	80375-12-30 18:29 G	31077789.18	31077789.27	31077789.35	0.1662	0.1130
Mercury	80376-11-10 05:32 G	31078104.62	31078104.73	31078104.85	0.1863	0.1281
Mercury	80377-12-05 00:15 G	31078494.41	31078494.51	31078494.62	0.1681	0.0845
Mercury	80385-05-22 05:17 G	31081219.68	31081219.72	31081219.75	0.1657	0.1577
Mercury	80387-04-27 10:48 G	31081924.83	31081924.95	31081925.06	0.1676	0.0354
Mercury	80396-09-16 21:08 G	31085355.26	31085355.38	31085355.50	0.1671	0.0142
Mercury	80397-07-30 12:58 G	31085671.92	31085672.04	31085672.16	0.1849	0.1155
Venus	80405-04-15 15:08 G	31088488.01	31088488.13	31088488.26	0.1747	0.1186
Mercury	80406-02-07 07:41 G	31088785.71	31088785.82	31088785.93	0.1666	0.0614
Mercury	80406-12-20 09:51 G	31089101.75	31089101.91	31089102.07	0.1856	0.0037
Mercury	80408-01-13 14:10 G	31089491.03	31089491.09	31089491.16	0.1687	0.1416
Mercury	80415-06-30 18:15 G	31092216.18	31092216.26	31092216.35	0.1661	0.1077
Mercury	80416-05-11 06:15 G	31092531.63	31092531.76	31092531.88	0.1864	0.1185
Mercury	80417-06-05 00:29 G	31092921.42	31092921.52	31092921.62	0.1682	0.0905
Moon	80421-08-19 19:56 G	31094458.14	31094458.33	31094458.53	0.1903	0.0929
Earth	80421-08-20 00:58 G	31094458.37	31094458.54	31094458.71	0.1904	0.1070 *
Mercury	80424-11-20 05:03 G	31095646.67	31095646.71	31095646.75	0.1657	0.1527
Mercury	80426-10-26 10:34 G	31096351.83	31096351.94	31096352.06	0.1676	0.0403
Venus	80432-09-01 02:10 G	31098488.48	31098488.59	31098488.69	0.1780	0.1417
Mercury	80436-03-17 20:53 G	31099782.25	31099782.37	31099782.49	0.1671	0.0103
Mercury	80437-01-28 13:41 G	31100098.96	31100099.07	31100099.19	0.1849	0.1268
Venus	80437-04-14 18:29 G	31100175.17	31100175.27	31100175.37	0.1735	0.1388
Mercury	80445-08-08 07:41 G	31103212.71	31103212.82	31103212.93	0.1666	0.0557

Mercury	80446-06-20 10:34 G	31103528.78	31103528.94	31103529.10	0.1856	0.0119
Mercury	80447-07-14 14:10 G	31103918.04	31103918.09	31103918.15	0.1687	0.1472
Mercury	80454-12-29 18:15 G	31106643.17	31106643.26	31106643.35	0.1661	0.1021
Mercury	80455-11-10 06:58 G	31106958.66	31106958.79	31106958.92	0.1863	0.1068
Mercury	80456-12-04 00:29 G	31107348.42	31107348.52	31107348.61	0.1681	0.0960
Mercury	80464-05-21 05:03 G	31110073.66	31110073.71	31110073.77	0.1657	0.1470
Venus	80464-08-31 12:58 G	31110175.97	31110176.04	31110176.12	0.1793	0.1616
Mercury	80466-04-26 10:34 G	31110778.83	31110778.94	31110779.06	0.1676	0.0460
Venus	80471-02-11 00:15 G	31112530.43	31112530.51	31112530.59	0.1751	0.1540
Mercury	80475-09-16 21:08 G	31114209.26	31114209.38	31114209.50	0.1671	0.0062
Mercury	80476-07-29 14:10 G	31114525.98	31114526.09	31114526.19	0.1849	0.1345
Mercury	80485-02-06 07:27 G	31117639.70	31117639.81	31117639.93	0.1666	0.0510
Mercury	80485-12-19 11:17 G	31117955.82	31117955.97	31117956.13	0.1857	0.0232
Mercury	80487-01-12 14:10 G	31118345.04	31118345.09	31118345.14	0.1687	0.1523
Mercury	80494-06-29 18:15 G	31121070.17	31121070.26	31121070.36	0.1661	0.0966
Mercury	80495-05-11 07:41 G	31121385.69	31121385.82	31121385.96	0.1863	0.0957
Mercury	80496-06-04 00:15 G	31121775.42	31121775.51	31121775.61	0.1681	0.1008
Venus	80503-02-11 03:22 G	31124217.51	31124217.64	31124217.78	0.1739	0.1057
Mercury	80503-11-21 05:03 G	31124500.65	31124500.71	31124500.77	0.1657	0.1416
Mercury	80505-10-26 10:34 G	31125205.83	31125205.94	31125206.06	0.1676	0.0515
Mercury	80515-03-18 20:53 G	31128636.25	31128636.37	31128636.49	0.1671	0.0050
Mercury	80516-01-29 14:53 G	31128953.03	31128953.12	31128953.22	0.1849	0.1454
Mercury	80524-08-08 07:41 G	31132066.70	31132066.82	31132066.93	0.1666	0.0454
Mercury	80525-06-20 12:00 G	31132382.84	31132383.00	31132383.16	0.1856	0.0325
Mercury	80526-07-14 14:10 G	31132772.05	31132772.09	31132772.13	0.1687	0.1581
Venus	80530-06-29 19:41 G	31134218.19	31134218.32	31134218.46	0.1789	0.1153
Mercury	80533-12-29 18:15 G	31135497.16	31135497.26	31135497.36	0.1661	0.0916
Mercury	80534-11-10 08:10 G	31135812.70	31135812.84	31135812.99	0.1864	0.0866
Mercury	80535-12-05 00:15 G	31136202.42	31136202.51	31136202.61	0.1681	0.1067
Earth	80539-02-16 16:20 G	31137372.01	31137372.18	31137372.34	0.1627	0.0745

Moon	80539-02-16 21:22 G	31137372.23	31137372.39	31137372.56	0.1627	0.0866 *
Mercury	80543-05-22 05:03 G	31138927.64	31138927.71	31138927.77	0.1657	0.1367
Mercury	80545-04-26 10:34 G	31139632.83	31139632.94	31139633.05	0.1676	0.0562
Mercury	80554-09-16 20:53 G	31143063.25	31143063.37	31143063.49	0.1671	0.0078
Mercury	80555-07-30 15:36 G	31143380.07	31143380.15	31143380.24	0.1849	0.1557
Mercury	80564-02-07 07:27 G	31146493.70	31146493.81	31146493.93	0.1666	0.0401
Mercury	80564-12-19 12:44 G	31146809.87	31146810.03	31146810.18	0.1856	0.0428
Mercury	80566-01-12 14:10 G	31147199.06	31147199.09	31147199.12	0.1687	0.1633
Venus	80568-12-08 12:58 G	31148259.89	31148260.04	31148260.20	0.1743	0.0742
Mercury	80573-06-29 18:15 G	31149924.16	31149924.26	31149924.36	0.1661	0.0860
Mercury	80574-05-11 09:08 G	31150239.74	31150239.88	31150240.03	0.1863	0.0746
Mercury	80575-06-05 00:15 G	31150629.43	31150629.51	31150629.60	0.1681	0.1122
Mercury	80582-11-20 05:03 G	31153354.64	31153354.71	31153354.78	0.1657	0.1312
Mercury	80584-10-25 10:34 G	31154059.83	31154059.94	31154060.05	0.1676	0.0619
Mercury	80594-03-17 20:53 G	31157490.25	31157490.37	31157490.49	0.1671	0.0134
Mercury	80595-01-28 16:05 G	31157807.10	31157807.17	31157807.24	0.1849	0.1639
Venus	80596-04-26 01:56 G	31158260.42	31158260.58	31158260.74	0.1785	0.0681
Mercury	80603-08-09 07:27 G	31160920.69	31160920.81	31160920.93	0.1666	0.0348
Mercury	80604-06-20 13:27 G	31161236.91	31161237.06	31161237.22	0.1857	0.0535
Mercury	80605-07-14 14:10 G	31161626.09	31161626.09	31161626.09	0.1687	0.1686
Mercury	80612-12-29 18:15 G	31164351.15	31164351.26	31164351.36	0.1661	0.0810
Mercury	80613-11-10 09:51 G	31164666.76	31164666.91	31164667.06	0.1863	0.0643
Mercury	80614-12-05 00:15 G	31165056.42	31165056.51	31165056.59	0.1681	0.1168
Earth	80618-02-19 18:00 G	31166229.14	31166229.25	31166229.36	0.1625	0.1294
Moon	80618-02-20 00:00 G	31166229.48	31166229.50	31166229.52	0.1625	0.1610
Mercury	80622-05-22 05:03 G	31167781.63	31167781.71	31167781.78	0.1657	0.1258
Mercury	80623-04-02 05:46 G	31168096.73	31168096.74	31168096.74	0.1870	0.1867
Mercury	80624-04-26 10:34 G	31168486.83	31168486.94	31168487.05	0.1676	0.0674
Mercury	80633-09-16 20:53 G	31171917.25	31171917.37	31171917.49	0.1671	0.0184
Mercury	80634-07-30 16:48 G	31172234.15	31172234.20	31172234.25	0.1849	0.1743

Venus	80634-10-06 22:05 G	31172302.25	31172302.42	31172302.59	0.1747	0.0398
Mercury	80643-02-07 07:27 G	31175347.69	31175347.81	31175347.93	0.1666	0.0293
Mercury	80643-12-20 13:56 G	31175663.93	31175664.08	31175664.23	0.1856	0.0627
Mercury	80652-06-29 18:00 G	31178778.15	31178778.25	31178778.36	0.1661	0.0758
Mercury	80653-05-11 10:20 G	31179093.78	31179093.93	31179094.09	0.1864	0.0548
Mercury	80654-06-05 00:15 G	31179483.43	31179483.51	31179483.59	0.1681	0.1228
Mercury	80661-11-20 04:48 G	31182208.62	31182208.70	31182208.78	0.1656	0.1208
Venus	80662-02-22 08:24 G	31182302.67	31182302.85	31182303.02	0.1781	0.0226
Mercury	80662-10-01 06:29 G	31182523.72	31182523.77	31182523.83	0.1870	0.1749
Mercury	80663-10-26 10:34 G	31182913.83	31182913.94	31182914.04	0.1676	0.0724
Mercury	80671-04-12 15:51 G	31185639.15	31185639.16	31185639.17	0.1652	0.1643
Mercury	80673-03-17 20:53 G	31186344.25	31186344.37	31186344.49	0.1671	0.0236
Mercury	80674-01-28 17:32 G	31186661.23	31186661.23	31186661.24	0.1849	0.1849
Mercury	80682-08-08 07:27 G	31189774.69	31189774.81	31189774.93	0.1666	0.0238
Mercury	80683-06-20 14:39 G	31190090.96	31190091.11	31190091.26	0.1856	0.0729
Mercury	80691-12-29 18:00 G	31193205.14	31193205.25	31193205.36	0.1661	0.0703
Mercury	80692-11-09 11:17 G	31193520.81	31193520.97	31193521.13	0.1863	0.0435
Mercury	80693-12-04 00:15 G	31193910.44	31193910.51	31193910.59	0.1681	0.1280
Venus	80700-08-04 06:58 G	31196344.62	31196344.79	31196344.96	0.1751	0.0056
Mercury	80701-05-22 04:48 G	31196635.62	31196635.70	31196635.79	0.1656	0.1153
Mercury	80702-04-02 06:58 G	31196950.72	31196950.79	31196950.87	0.1870	0.1656
Mercury	80703-04-27 10:34 G	31197340.83	31197340.94	31197341.04	0.1676	0.0780
Mercury	80710-10-12 15:51 G	31200066.13	31200066.16	31200066.18	0.1652	0.1596
Mercury	80712-09-16 20:53 G	31200771.25	31200771.37	31200771.49	0.1671	0.0289
Mercury	80722-02-07 07:12 G	31204201.69	31204201.80	31204201.92	0.1666	0.0201
Mercury	80722-12-20 15:36 G	31204518.00	31204518.15	31204518.29	0.1857	0.0836
Venus	80727-12-21 15:22 G	31206344.97	31206345.14	31206345.32	0.1776	0.0204
Mercury	80731-06-30 18:00 G	31207632.14	31207632.25	31207632.36	0.1661	0.0649
Mercury	80732-05-11 12:00 G	31207947.84	31207948.00	31207948.16	0.1863	0.0327
Mercury	80733-06-05 00:15 G	31208337.44	31208337.51	31208337.58	0.1681	0.1329

Mercury	80740-11-20 04:48 G	31211062.61	31211062.70	31211062.79	0.1656	0.1101
Mercury	80741-10-01 07:41 G	31211377.74	31211377.82	31211377.92	0.1870	0.1547
Mercury	80742-10-26 10:34 G	31211767.83	31211767.94	31211768.04	0.1676	0.0833
Mercury	80750-04-12 15:51 G	31214493.12	31214493.16	31214493.20	0.1652	0.1541
Mercury	80752-03-17 20:53 G	31215198.25	31215198.37	31215198.48	0.1671	0.0344
Mercury	80761-08-08 07:27 G	31218628.69	31218628.81	31218628.93	0.1666	0.0138
Mercury	80762-06-20 16:05 G	31218945.03	31218945.17	31218945.30	0.1856	0.0927
Venus	80766-06-01 16:05 G	31220387.00	31220387.17	31220387.34	0.1754	0.0301
Mercury	80770-12-29 18:00 G	31222059.14	31222059.25	31222059.36	0.1661	0.0600
Mercury	80771-11-10 12:29 G	31222374.86	31222375.02	31222375.18	0.1864	0.0237
Mercury	80772-12-04 00:15 G	31222764.44	31222764.51	31222764.58	0.1681	0.1384
Mercury	80780-05-21 04:48 G	31225489.61	31225489.70	31225489.79	0.1656	0.1052
Mercury	80781-04-01 08:53 G	31225804.76	31225804.87	31225804.97	0.1870	0.1422
Mercury	80782-04-26 10:20 G	31226194.83	31226194.93	31226195.04	0.1676	0.0882
Moon	80784-08-25 01:56 G	31227046.53	31227046.58	31227046.62	0.1902	0.1847
Mercury	80789-10-11 15:36 G	31228920.11	31228920.15	31228920.20	0.1652	0.1489
Mercury	80791-09-16 20:53 G	31229625.25	31229625.37	31229625.48	0.1671	0.0398
Venus	80793-10-17 21:51 G	31230387.25	31230387.41	31230387.58	0.1772	0.0641
Mercury	80801-02-06 07:27 G	31233055.69	31233055.81	31233055.92	0.1666	0.0099
Mercury	80801-12-19 16:34 G	31233372.06	31233372.19	31233372.33	0.1856	0.1027
Mercury	80810-06-29 18:00 G	31236486.13	31236486.25	31236486.36	0.1661	0.0547
Mercury	80811-05-11 13:27 G	31236801.90	31236802.06	31236802.22	0.1863	0.0126
Mercury	80812-06-04 00:15 G	31237191.45	31237191.51	31237191.57	0.1681	0.1439
Mercury	80819-11-20 04:48 G	31239916.60	31239916.70	31239916.79	0.1656	0.0998
Mercury	80820-09-30 09:08 G	31240231.77	31240231.88	31240231.99	0.1870	0.1340
Mercury	80821-10-25 10:20 G	31240621.84	31240621.93	31240622.03	0.1676	0.0938
Moon	80823-02-19 16:05 G	31241103.98	31241104.17	31241104.36	0.1630	0.0207
Earth	80823-02-19 22:05 G	31241104.23	31241104.42	31241104.60	0.1630	0.0089 *
Mercury	80829-04-11 15:36 G	31243347.09	31243347.15	31243347.21	0.1652	0.1439
Mercury	80831-03-17 20:53 G	31244052.25	31244052.37	31244052.48	0.1671	0.0449

Venus	80832-03-29 00:29 G	31244429.36	31244429.52	31244429.68	0.1759	0.0659
Mercury	80840-08-07 07:12 G	31247482.68	31247482.80	31247482.92	0.1666	0.0036
Mercury	80841-06-19 17:32 G	31247799.11	31247799.23	31247799.36	0.1857	0.1132
Mercury	80849-12-28 18:00 G	31250913.13	31250913.25	31250913.36	0.1661	0.0495
Mercury	80850-11-09 13:56 G	31251228.92	31251229.08	31251229.24	0.1863	0.0033
Mercury	80851-12-04 00:15 G	31251618.45	31251618.51	31251618.56	0.1681	0.1487
Mercury	80859-05-21 04:48 G	31254343.60	31254343.70	31254343.79	0.1656	0.0945
Venus	80859-08-15 05:32 G	31254429.59	31254429.73	31254429.87	0.1768	0.1036
Mercury	80860-03-31 10:05 G	31254658.80	31254658.92	31254659.04	0.1870	0.1221
Mercury	80861-04-25 10:20 G	31255048.84	31255048.93	31255049.03	0.1676	0.0993
Mercury	80868-10-10 15:36 G	31257774.09	31257774.15	31257774.21	0.1652	0.1385
Mercury	80870-09-15 20:39 G	31258479.25	31258479.36	31258479.48	0.1671	0.0504
Mercury	80880-02-06 07:12 G	31261909.68	31261909.80	31261909.92	0.1666	0.0034
Mercury	80880-12-18 18:00 G	31262226.13	31262226.25	31262226.37	0.1856	0.1218
Mercury	80889-06-28 17:46 G	31265340.13	31265340.24	31265340.36	0.1661	0.0447
Mercury	80890-05-10 14:39 G	31265655.95	31265656.11	31265656.27	0.1864	0.0073
Mercury	80891-06-04 00:15 G	31266045.47	31266045.51	31266045.56	0.1681	0.1542
Venus	80898-01-24 09:08 G	31268471.74	31268471.88	31268472.02	0.1762	0.1029
Mercury	80898-11-19 04:34 G	31268770.59	31268770.69	31268770.79	0.1656	0.0896
Mercury	80899-09-30 11:03 G	31269085.83	31269085.96	31269086.09	0.1870	0.1108
Mercury	80900-10-25 10:20 G	31269475.84	31269475.93	31269476.02	0.1676	0.1037
Mercury	80908-04-11 15:36 G	31272201.08	31272201.15	31272201.22	0.1652	0.1333
Mercury	80910-03-17 20:39 G	31272906.25	31272906.36	31272906.48	0.1671	0.0553
Mercury	80919-08-08 07:12 G	31276336.68	31276336.80	31276336.92	0.1666	0.0087
Mercury	80920-06-19 18:44 G	31276653.17	31276653.28	31276653.39	0.1856	0.1318
Venus	80925-06-12 12:29 G	31278471.92	31278472.02	31278472.12	0.1764	0.1446
Mercury	80928-12-28 17:46 G	31279767.13	31279767.24	31279767.36	0.1661	0.0391
Mercury	80929-11-09 15:22 G	31280082.98	31280083.14	31280083.30	0.1863	0.0180
Venus	80930-01-24 13:27 G	31280159.00	31280159.06	31280159.12	0.1750	0.1623
Mercury	80930-12-04 00:15 G	31280472.47	31280472.51	31280472.54	0.1681	0.1594

Mercury	80938-05-21 04:34 G	31283197.59	31283197.69	31283197.79	0.1656	0.0843
Mercury	80939-04-01 11:17 G	31283512.84	31283512.97	31283513.11	0.1870	0.1020
Mercury	80940-04-25 10:20 G	31283902.84	31283902.93	31283903.02	0.1676	0.1093
Mercury	80947-10-11 15:22 G	31286628.07	31286628.14	31286628.22	0.1652	0.1287
Mercury	80949-09-15 20:39 G	31287333.25	31287333.36	31287333.48	0.1671	0.0605
Venus	80957-06-11 22:05 G	31290159.33	31290159.42	31290159.52	0.1777	0.1458
Mercury	80959-02-06 07:12 G	31290763.68	31290763.80	31290763.91	0.1665	0.0133
Mercury	80959-12-19 19:27 G	31291080.21	31291080.31	31291080.42	0.1857	0.1424
Venus	80963-11-22 17:46 G	31292514.13	31292514.24	31292514.34	0.1766	0.1401
Mercury	80968-06-28 17:46 G	31294194.13	31294194.24	31294194.36	0.1661	0.0339
Mercury	80969-05-10 16:05 G	31294510.01	31294510.17	31294510.33	0.1863	0.0283
Mercury	80970-06-04 00:15 G	31294899.48	31294899.51	31294899.53	0.1681	0.1645
Mercury	80977-11-19 04:34 G	31297624.59	31297624.69	31297624.79	0.1656	0.0790
Mercury	80978-09-30 12:15 G	31297939.87	31297940.01	31297940.15	0.1870	0.0910
Mercury	80979-10-25 10:20 G	31298329.85	31298329.93	31298330.02	0.1676	0.1147
Mercury	80987-04-11 15:22 G	31301055.07	31301055.14	31301055.22	0.1652	0.1232
Mercury	80989-03-16 20:39 G	31301760.25	31301760.36	31301760.47	0.1671	0.0656
Venus	80995-11-21 22:48 G	31304201.34	31304201.45	31304201.57	0.1754	0.1299
Mercury	80998-08-07 07:12 G	31305190.68	31305190.80	31305190.92	0.1666	0.0179
Mercury	80999-06-19 19:56 G	31305507.24	31305507.33	31305507.42	0.1856	0.1509

82ND MILLENNIUM CE

This is a list of transits visible from Mars in the 82nd millennium CE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Mercury	81007-12-29 17:46 G	31308621.12	31308621.24	31308621.36	0.1661	0.0290
Mercury	81008-11-09 16:34 G	31308937.04	31308937.19	31308937.35	0.1864	0.0376
Mercury	81017-05-21 04:34 G	31312051.58	31312051.69	31312051.79	0.1656	0.0740
Mercury	81018-04-01 13:12 G	31312366.90	31312367.05	31312367.19	0.1870	0.0790
Mercury	81019-04-26 10:20 G	31312756.85	31312756.93	31312757.01	0.1676	0.1193
Venus	81023-04-10 04:48 G	31314201.56	31314201.70	31314201.85	0.1773	0.1012
Mercury	81026-10-11 15:22 G	31315482.06	31315482.14	31315482.22	0.1652	0.1180
Earth	81028-02-21 00:58 G	31315979.41	31315979.54	31315979.67	0.1636	0.1164
Moon	81028-02-21 06:00 G	31315979.60	31315979.75	31315979.90	0.1636	0.0862 *
Mercury	81028-09-15 20:39 G	31316187.25	31316187.36	31316187.47	0.1671	0.0708
Mercury	81036-03-03 02:24 G	31318912.58	31318912.60	31318912.62	0.1647	0.1611
Mercury	81038-02-06 07:12 G	31319617.68	31319617.80	31319617.92	0.1666	0.0232
Mercury	81038-12-19 20:39 G	31319934.28	31319934.36	31319934.44	0.1857	0.1605
Mercury	81047-06-29 17:46 G	31323048.12	31323048.24	31323048.36	0.1661	0.0234
Mercury	81048-05-10 17:32 G	31323364.08	31323364.23	31323364.39	0.1863	0.0483
Mercury	81056-11-19 04:34 G	31326478.58	31326478.69	31326478.80	0.1656	0.0689
Mercury	81057-09-30 13:27 G	31326793.91	31326794.06	31326794.21	0.1870	0.0710
Mercury	81058-10-25 10:20 G	31327183.85	31327183.93	31327184.01	0.1676	0.1248
Venus	81061-09-19 07:27 G	31328243.66	31328243.81	31328243.95	0.1758	0.0942
Mercury	81066-04-11 15:22 G	31329909.05	31329909.14	31329909.22	0.1651	0.1132
Mercury	81068-03-16 20:39 G	31330614.25	31330614.36	31330614.47	0.1670	0.0757
Earth	81068-08-26 09:36 G	31330776.70	31330776.90	31330777.10	0.1895	0.0402
Moon	81068-08-26 12:29 G	31330776.85	31330777.02	31330777.20	0.1896	0.0491 *
Mercury	81075-09-02 02:24 G	31333339.56	31333339.60	31333339.63	0.1647	0.1560
Mercury	81077-08-07 06:58 G	31334044.68	31334044.79	31334044.91	0.1665	0.0283
Mercury	81078-06-19 21:36 G	31334361.34	31334361.40	31334361.46	0.1856	0.1713
Mercury	81086-12-28 17:46 G	31337475.12	31337475.24	31337475.36	0.1661	0.0184
Mercury	81087-11-09 18:00 G	31337791.10	31337791.25	31337791.41	0.1863	0.0581
Venus	81089-02-04 11:46 G	31338243.82	31338243.99	31338244.15	0.1769	0.0581

Mercury	81096-05-20 04:34 G	31340905.58	31340905.69	31340905.80	0.1656	0.0636
Mercury	81097-03-31 14:24 G	31341220.95	31341221.10	31341221.26	0.1870	0.0593
Mercury	81098-04-25 10:20 G	31341610.86	31341610.93	31341611.01	0.1676	0.1302
Mercury	81105-10-11 15:22 G	31344336.05	31344336.14	31344336.23	0.1652	0.1079
Mercury	81106-08-22 09:51 G	31344650.88	31344650.91	31344650.94	0.1877	0.1831
Moon	81107-02-24 02:10 G	31344836.43	31344836.59	31344836.75	0.1633	0.0702
Earth	81107-02-24 03:22 G	31344836.48	31344836.64	31344836.79	0.1633	0.0907 *
Mercury	81107-09-16 20:39 G	31345041.26	31345041.36	31345041.46	0.1670	0.0810
Mercury	81115-03-04 02:10 G	31347766.55	31347766.59	31347766.64	0.1647	0.1512
Mercury	81117-02-06 07:12 G	31348471.68	31348471.80	31348471.91	0.1665	0.0337
Mercury	81117-12-19 21:51 G	31348788.38	31348788.41	31348788.45	0.1856	0.1792
Mercury	81126-06-29 17:46 G	31351902.12	31351902.24	31351902.35	0.1661	0.0144
Mercury	81127-05-11 18:58 G	31352218.14	31352218.29	31352218.44	0.1864	0.0678
Venus	81127-07-18 16:05 G	31352286.01	31352286.17	31352286.33	0.1762	0.0590
Mercury	81135-11-20 04:20 G	31355332.57	31355332.68	31355332.79	0.1656	0.0589
Mercury	81136-09-30 15:08 G	31355647.98	31355648.13	31355648.29	0.1870	0.0487
Mercury	81137-10-25 10:20 G	31356037.86	31356037.93	31356038.00	0.1675	0.1347
Mercury	81145-04-11 15:22 G	31358763.05	31358763.14	31358763.23	0.1652	0.1027
Mercury	81146-02-20 10:34 G	31359077.88	31359077.94	31359078.01	0.1877	0.1719
Mercury	81147-03-17 20:39 G	31359468.26	31359468.36	31359468.46	0.1671	0.0862
Mercury	81154-09-02 02:10 G	31362193.54	31362193.59	31362193.65	0.1647	0.1459
Venus	81154-12-03 19:27 G	31362286.13	31362286.31	31362286.48	0.1765	0.0186
Mercury	81156-08-07 07:12 G	31362898.68	31362898.80	31362898.91	0.1665	0.0389
Mercury	81165-12-28 17:46 G	31366329.12	31366329.24	31366329.35	0.1661	0.0103
Mercury	81166-11-09 19:27 G	31366645.17	31366645.31	31366645.46	0.1863	0.0778
Mercury	81175-05-21 04:20 G	31369759.57	31369759.68	31369759.80	0.1656	0.0539
Mercury	81176-03-31 15:36 G	31370075.00	31370075.15	31370075.31	0.1870	0.0400
Mercury	81177-04-25 10:20 G	31370464.87	31370464.93	31370464.99	0.1676	0.1403
Mercury	81184-10-10 15:08 G	31373190.04	31373190.13	31373190.23	0.1651	0.0981
Mercury	81185-08-21 11:32 G	31373504.90	31373504.98	31373505.06	0.1877	0.1610

Mercury	81186-09-15 20:39 G	31373895.26	31373895.36	31373895.46	0.1670	0.0911
Venus	81193-05-15 00:44 G	31376328.36	31376328.53	31376328.71	0.1766	0.0231
Mercury	81194-03-03 02:10 G	31376620.53	31376620.59	31376620.65	0.1647	0.1408
Mercury	81196-02-06 06:58 G	31377325.67	31377325.79	31377325.91	0.1665	0.0430
Mercury	81205-06-28 17:46 G	31380756.12	31380756.24	31380756.36	0.1661	0.0059
Mercury	81206-05-10 20:10 G	31381072.20	31381072.34	31381072.49	0.1863	0.0878
Mercury	81214-11-19 04:20 G	31384186.57	31384186.68	31384186.80	0.1656	0.0486
Mercury	81215-09-30 16:34 G	31384502.03	31384502.19	31384502.35	0.1870	0.0288
Mercury	81216-10-24 10:20 G	31384891.87	31384891.93	31384891.99	0.1676	0.1455
Venus	81220-09-30 02:10 G	31386328.42	31386328.59	31386328.76	0.1761	0.0235
Mercury	81224-04-10 15:08 G	31387617.04	31387617.13	31387617.23	0.1651	0.0928
Mercury	81225-02-19 12:00 G	31387931.91	31387932.00	31387932.10	0.1877	0.1508
Mercury	81226-03-16 20:39 G	31388322.26	31388322.36	31388322.46	0.1670	0.0964
Mercury	81233-09-01 02:10 G	31391047.53	31391047.59	31391047.65	0.1647	0.1359
Mercury	81235-08-07 06:58 G	31391752.68	31391752.79	31391752.91	0.1665	0.0488
Mercury	81244-12-27 17:32 G	31395183.11	31395183.23	31395183.35	0.1660	0.0038
Mercury	81245-11-08 20:53 G	31395499.23	31395499.37	31395499.51	0.1864	0.0969
Mercury	81254-05-20 04:20 G	31398613.57	31398613.68	31398613.80	0.1656	0.0434
Mercury	81255-03-31 17:32 G	31398929.07	31398929.23	31398929.39	0.1870	0.0174
Mercury	81256-04-24 10:20 G	31399318.88	31399318.93	31399318.98	0.1675	0.1501
Venus	81259-03-12 08:53 G	31400370.70	31400370.87	31400371.04	0.1770	0.0155
Mercury	81263-10-10 15:08 G	31402044.03	31402044.13	31402044.23	0.1651	0.0876
Mercury	81264-08-20 12:44 G	31402358.93	31402359.03	31402359.14	0.1877	0.1404
Mercury	81265-09-14 20:39 G	31402749.26	31402749.36	31402749.45	0.1671	0.1016
Mercury	81273-03-02 02:10 G	31405474.52	31405474.59	31405474.66	0.1647	0.1308
Mercury	81275-02-05 06:58 G	31406179.68	31406179.79	31406179.90	0.1665	0.0537
Mercury	81284-06-27 17:32 G	31409610.11	31409610.23	31409610.35	0.1660	0.0088
Mercury	81285-05-09 21:36 G	31409926.27	31409926.40	31409926.53	0.1863	0.1075
Venus	81286-07-28 10:20 G	31410370.76	31410370.93	31410371.09	0.1757	0.0606
Mercury	81293-11-18 04:20 G	31413040.57	31413040.68	31413040.80	0.1656	0.0384

Mercury	81294-09-29 17:46 G	31413356.08	31413356.24	31413356.41	0.1870	0.0102
Mercury	81295-10-24 10:20 G	31413745.89	31413745.93	31413745.97	0.1676	0.1555
Mercury	81303-04-11 15:08 G	31416471.03	31416471.13	31416471.23	0.1651	0.0829
Mercury	81304-02-20 13:56 G	31416785.96	31416786.08	31416786.19	0.1877	0.1287
Mercury	81305-03-16 20:39 G	31417176.27	31417176.36	31417176.45	0.1670	0.1064
Earth	81312-02-24 06:29 G	31419711.59	31419711.77	31419711.95	0.1639	0.0337
Moon	81312-02-24 07:56 G	31419711.63	31419711.83	31419712.03	0.1639	0.0126 *
Mercury	81312-09-01 02:10 G	31419901.51	31419901.59	31419901.66	0.1647	0.1257
Mercury	81314-08-07 06:58 G	31420606.68	31420606.79	31420606.90	0.1665	0.0585
Mercury	81323-12-28 17:32 G	31424037.11	31424037.23	31424037.35	0.1661	0.0131
Mercury	81324-11-08 22:20 G	31424353.31	31424353.43	31424353.55	0.1863	0.1166
Venus	81325-01-07 17:17 G	31424413.06	31424413.22	31424413.39	0.1774	0.0536
Mercury	81333-05-20 04:20 G	31427467.56	31427467.68	31427467.80	0.1656	0.0331
Mercury	81334-03-31 18:44 G	31427783.12	31427783.28	31427783.45	0.1870	0.0052
Mercury	81335-04-25 10:20 G	31428172.90	31428172.93	31428172.96	0.1676	0.1608
Mercury	81342-10-10 15:08 G	31430898.03	31430898.13	31430898.23	0.1651	0.0775
Mercury	81343-08-21 14:24 G	31431212.97	31431213.10	31431213.22	0.1877	0.1196
Mercury	81344-09-14 20:39 G	31431603.27	31431603.36	31431603.45	0.1670	0.1117
Mercury	81352-03-02 02:10 G	31434328.51	31434328.59	31434328.66	0.1647	0.1210
Venus	81352-05-25 17:46 G	31434413.10	31434413.24	31434413.39	0.1752	0.0990
Earth	81352-08-27 09:51 G	31434506.78	31434506.91	31434507.04	0.1888	0.1409
Moon	81352-08-27 12:58 G	31434506.86	31434507.04	31434507.23	0.1889	0.1056 *
Mercury	81354-02-05 06:58 G	31435033.68	31435033.79	31435033.90	0.1665	0.0637
Mercury	81361-07-23 13:12 G	31437759.04	31437759.05	31437759.06	0.1643	0.1631
Mercury	81363-06-28 17:32 G	31438464.11	31438464.23	31438464.35	0.1660	0.0170
Mercury	81364-05-09 23:03 G	31438780.35	31438780.46	31438780.58	0.1864	0.1265
Mercury	81372-11-18 04:20 G	31441894.56	31441894.68	31441894.79	0.1656	0.0284
Mercury	81373-09-29 19:41 G	31442210.15	31442210.32	31442210.48	0.1870	0.0132
Mercury	81374-10-24 10:20 G	31442599.91	31442599.93	31442599.94	0.1675	0.1653
Mercury	81382-04-10 15:08 G	31445325.02	31445325.13	31445325.24	0.1651	0.0724

Mercury	81383-02-19 15:08 G	31445640.00	31445640.13	31445640.27	0.1877	0.1084
Mercury	81384-03-15 20:39 G	31446030.27	31446030.36	31446030.44	0.1670	0.1168
Venus	81390-11-05 01:41 G	31448455.42	31448455.57	31448455.72	0.1778	0.0917
Mercury	81391-09-01 02:10 G	31448755.50	31448755.59	31448755.67	0.1647	0.1158
Mercury	81393-08-06 06:58 G	31449460.68	31449460.79	31449460.90	0.1665	0.0690
Mercury	81401-01-22 12:58 G	31452186.02	31452186.04	31452186.07	0.1643	0.1582
Mercury	81402-12-28 17:32 G	31452891.11	31452891.23	31452891.35	0.1660	0.0223
Mercury	81403-11-09 23:46 G	31453207.38	31453207.49	31453207.60	0.1863	0.1359
Mercury	81412-05-20 04:20 G	31456321.56	31456321.68	31456321.80	0.1656	0.0232
Mercury	81413-03-31 20:10 G	31456637.18	31456637.34	31456637.50	0.1870	0.0213
Venus	81418-03-24 01:41 G	31458455.47	31458455.57	31458455.68	0.1749	0.1359
Mercury	81421-10-10 14:53 G	31459752.02	31459752.12	31459752.23	0.1651	0.0680
Mercury	81422-08-21 16:05 G	31460067.03	31460067.17	31460067.31	0.1877	0.0974
Mercury	81423-09-15 20:39 G	31460457.28	31460457.36	31460457.44	0.1670	0.1216
Mercury	81431-03-03 01:56 G	31463182.50	31463182.58	31463182.67	0.1647	0.1109
Mercury	81433-02-05 06:58 G	31463887.68	31463887.79	31463887.89	0.1665	0.0737
Mercury	81440-07-23 12:58 G	31466613.00	31466613.04	31466613.08	0.1643	0.1530
Mercury	81442-06-28 17:32 G	31467318.12	31467318.23	31467318.35	0.1661	0.0278
Mercury	81443-05-11 00:29 G	31467634.42	31467634.52	31467634.62	0.1863	0.1457
Venus	81450-03-23 09:22 G	31470142.79	31470142.89	31470143.00	0.1761	0.1409
Mercury	81451-11-19 04:20 G	31470748.56	31470748.68	31470748.79	0.1656	0.0188
Mercury	81452-09-29 20:53 G	31471064.21	31471064.37	31471064.53	0.1870	0.0322
Venus	81456-09-02 10:05 G	31472497.80	31472497.92	31472498.03	0.1782	0.1302
Mercury	81461-04-10 15:08 G	31474179.02	31474179.13	31474179.24	0.1651	0.0626
Mercury	81462-02-19 16:34 G	31474494.05	31474494.19	31474494.34	0.1877	0.0879
Mercury	81463-03-16 20:39 G	31474884.28	31474884.36	31474884.43	0.1670	0.1268
Mercury	81470-09-01 01:56 G	31477609.49	31477609.58	31477609.67	0.1647	0.1059
Mercury	81472-08-06 06:58 G	31478314.69	31478314.79	31478314.90	0.1665	0.0790
Mercury	81480-01-22 12:58 G	31481039.99	31481040.04	31481040.09	0.1643	0.1482
Mercury	81481-12-27 17:32 G	31481745.11	31481745.23	31481745.35	0.1660	0.0321

Mercury	81482-11-09 01:12 G	31482061.46	31482061.55	31482061.64	0.1864	0.1550
Venus	81484-01-19 09:36 G	31482497.88	31482497.90	31482497.93	0.1745	0.1720
Venus	81488-09-01 16:20 G	31484185.08	31484185.18	31484185.27	0.1769	0.1477
Mercury	81491-05-20 04:20 G	31485175.56	31485175.68	31485175.79	0.1656	0.0141
Mercury	81492-03-30 21:51 G	31485491.25	31485491.41	31485491.57	0.1870	0.0427
Mercury	81500-10-10 14:53 G	31488606.01	31488606.12	31488606.24	0.1651	0.0578
Mercury	81501-08-21 17:32 G	31488921.08	31488921.23	31488921.37	0.1877	0.0777
Mercury	81502-09-15 20:39 G	31489311.29	31489311.36	31489311.43	0.1670	0.1320
Mercury	81510-03-03 01:56 G	31492036.49	31492036.58	31492036.67	0.1647	0.1008
Mercury	81512-02-06 06:58 G	31492741.69	31492741.79	31492741.89	0.1665	0.0839
Venus	81516-01-19 16:48 G	31494185.06	31494185.20	31494185.35	0.1757	0.1006
Earth	81517-02-24 08:53 G	31494586.85	31494586.87	31494586.90	0.1646	0.1627
Mercury	81519-07-24 12:58 G	31495466.99	31495467.04	31495467.10	0.1643	0.1431
Mercury	81521-06-28 17:32 G	31496172.11	31496172.23	31496172.35	0.1660	0.0375
Mercury	81522-05-11 01:56 G	31496488.51	31496488.58	31496488.65	0.1863	0.1648
Venus	81522-07-01 18:00 G	31496540.20	31496540.25	31496540.30	0.1786	0.1701
Mercury	81530-11-19 04:05 G	31499602.56	31499602.67	31499602.79	0.1656	0.0102
Mercury	81531-09-30 22:20 G	31499918.27	31499918.43	31499918.58	0.1871	0.0508
Mercury	81540-04-10 14:53 G	31503033.01	31503033.12	31503033.23	0.1651	0.0529
Mercury	81541-02-19 18:29 G	31503348.12	31503348.27	31503348.42	0.1877	0.0658
Mercury	81542-03-16 20:39 G	31503738.29	31503738.36	31503738.42	0.1670	0.1366
Mercury	81549-09-01 01:56 G	31506463.49	31506463.58	31506463.68	0.1647	0.0957
Mercury	81551-08-07 06:58 G	31507168.69	31507168.79	31507168.89	0.1665	0.0889
Venus	81554-07-01 00:44 G	31508227.40	31508227.53	31508227.66	0.1773	0.1117
Mercury	81559-01-22 12:58 G	31509893.98	31509894.04	31509894.10	0.1643	0.1382
Mercury	81560-12-27 17:32 G	31510599.12	31510599.23	31510599.35	0.1660	0.0424
Mercury	81561-11-09 02:39 G	31510915.55	31510915.61	31510915.66	0.1863	0.1739
Mercury	81570-05-20 04:05 G	31514029.56	31514029.67	31514029.79	0.1656	0.0064
Mercury	81571-03-31 23:17 G	31514345.32	31514345.47	31514345.62	0.1870	0.0620
Mercury	81579-10-10 14:53 G	31517460.01	31517460.12	31517460.24	0.1651	0.0478

Mercury	81580-08-20 18:58 G	31517775.13	31517775.29	31517775.44	0.1877	0.0575
Mercury	81581-09-14 20:39 G	31518165.30	31518165.36	31518165.42	0.1670	0.1419
Venus	81581-11-16 00:58 G	31518227.37	31518227.54	31518227.70	0.1753	0.0630
Mercury	81589-03-02 01:56 G	31520890.48	31520890.58	31520890.68	0.1647	0.0911
Mercury	81590-01-10 14:10 G	31521205.05	31521205.09	31521205.13	0.1884	0.1808
Mercury	81591-02-05 06:58 G	31521595.69	31521595.79	31521595.89	0.1665	0.0938
Moon	81596-02-27 05:17 G	31523443.54	31523443.72	31523443.89	0.1643	0.0559
Earth	81596-02-27 12:00 G	31523443.82	31523444.00	31523444.18	0.1643	0.0495 *
Mercury	81598-07-23 12:58 G	31524320.97	31524321.04	31524321.10	0.1643	0.1334
Mercury	81600-06-27 17:32 G	31525026.11	31525026.23	31525026.34	0.1660	0.0472
Mercury	81601-05-10 03:22 G	31525342.62	31525342.64	31525342.66	0.1864	0.1838
Mercury	81609-11-18 04:05 G	31528456.55	31528456.67	31528456.79	0.1656	0.0049
Mercury	81610-09-30 00:00 G	31528772.35	31528772.50	31528772.65	0.1870	0.0718
Mercury	81619-04-10 14:53 G	31531887.01	31531887.12	31531887.24	0.1651	0.0427
Mercury	81620-02-19 19:41 G	31532202.17	31532202.32	31532202.48	0.1877	0.0465
Venus	81620-04-27 09:08 G	31532269.72	31532269.88	31532270.04	0.1777	0.0739
Mercury	81621-03-15 20:39 G	31532592.30	31532592.36	31532592.41	0.1670	0.1469
Mercury	81628-08-31 01:56 G	31535317.48	31535317.58	31535317.68	0.1647	0.0859
Mercury	81629-07-11 14:53 G	31535632.05	31535632.12	31535632.19	0.1883	0.1697
Mercury	81630-08-06 06:58 G	31536022.69	31536022.79	31536022.88	0.1665	0.0990
Mercury	81638-01-21 12:58 G	31538747.96	31538748.04	31538748.11	0.1643	0.1285
Mercury	81639-12-27 17:32 G	31539453.12	31539453.23	31539453.34	0.1660	0.0523
Venus	81647-09-13 08:10 G	31542269.67	31542269.84	31542270.02	0.1749	0.0237
Mercury	81649-05-19 04:05 G	31542883.55	31542883.67	31542883.79	0.1656	0.0076
Mercury	81650-03-31 00:29 G	31543199.38	31543199.52	31543199.67	0.1870	0.0806
Mercury	81658-10-09 14:53 G	31546314.00	31546314.12	31546314.23	0.1651	0.0380
Mercury	81659-08-20 20:39 G	31546629.20	31546629.36	31546629.52	0.1877	0.0354
Mercury	81660-09-13 20:39 G	31547019.31	31547019.36	31547019.40	0.1670	0.1516
Mercury	81668-03-01 01:56 G	31549744.48	31549744.58	31549744.68	0.1647	0.0810
Mercury	81669-01-09 15:36 G	31550059.07	31550059.15	31550059.24	0.1883	0.1592

Mercury	81670-02-04 06:58 G	31550449.69	31550449.79	31550449.88	0.1665	0.1038
Mercury	81677-07-22 12:58 G	31553174.96	31553175.04	31553175.11	0.1643	0.1234
Mercury	81679-06-27 17:32 G	31553880.12	31553880.23	31553880.34	0.1660	0.0574
Venus	81686-02-22 16:48 G	31556312.03	31556312.20	31556312.37	0.1782	0.0348
Mercury	81688-11-17 04:05 G	31557310.55	31557310.67	31557310.79	0.1656	0.0119
Mercury	81689-09-29 01:27 G	31557626.42	31557626.56	31557626.70	0.1870	0.0910
Mercury	81698-04-09 14:53 G	31560741.00	31560741.12	31560741.24	0.1651	0.0327
Mercury	81699-02-18 21:08 G	31561056.22	31561056.38	31561056.54	0.1877	0.0267
Mercury	81700-03-15 20:39 G	31561446.32	31561446.36	31561446.40	0.1670	0.1567
Mercury	81707-09-01 01:56 G	31564171.47	31564171.58	31564171.68	0.1647	0.0765
Mercury	81708-07-11 16:20 G	31564486.09	31564486.18	31564486.28	0.1884	0.1493
Mercury	81709-08-06 06:58 G	31564876.70	31564876.79	31564876.88	0.1665	0.1089
Venus	81713-07-11 16:48 G	31566312.02	31566312.20	31566312.37	0.1745	0.0117
Moon	81715-09-02 21:22 G	31567095.33	31567095.39	31567095.45	0.1886	0.1795
Mercury	81717-01-21 12:44 G	31567601.95	31567602.03	31567602.11	0.1643	0.1187
Mercury	81718-12-27 17:32 G	31568307.11	31568307.23	31568307.34	0.1660	0.0621
Mercury	81726-06-14 00:00 G	31571032.48	31571032.50	31571032.52	0.1639	0.1598
Mercury	81728-05-19 04:05 G	31571737.55	31571737.67	31571737.79	0.1656	0.0168
Mercury	81729-03-31 02:10 G	31572053.46	31572053.59	31572053.72	0.1870	0.1011
Mercury	81737-10-09 14:53 G	31575168.00	31575168.12	31575168.24	0.1651	0.0278
Mercury	81738-08-20 22:05 G	31575483.25	31575483.42	31575483.58	0.1877	0.0167
Mercury	81739-09-14 20:39 G	31575873.33	31575873.36	31575873.39	0.1670	0.1619
Mercury	81747-03-02 01:41 G	31578598.47	31578598.57	31578598.68	0.1647	0.0715
Mercury	81748-01-10 17:17 G	31578913.11	31578913.22	31578913.33	0.1883	0.1380
Mercury	81749-02-04 06:58 G	31579303.70	31579303.79	31579303.87	0.1665	0.1138
Venus	81751-12-22 01:12 G	31580354.37	31580354.55	31580354.72	0.1786	0.0054
Mercury	81756-07-22 12:44 G	31582028.95	31582029.03	31582029.12	0.1642	0.1138
Mercury	81758-06-27 17:32 G	31582734.12	31582734.23	31582734.34	0.1660	0.0672
Mercury	81765-12-12 23:46 G	31585459.46	31585459.49	31585459.53	0.1638	0.1554
Mercury	81767-11-18 04:05 G	31586164.55	31586164.67	31586164.79	0.1655	0.0214

Mercury	81768-09-29 02:39 G	31586480.48	31586480.61	31586480.74	0.1871	0.1092
Mercury	81777-04-09 14:53 G	31589595.00	31589595.12	31589595.23	0.1651	0.0237
Mercury	81778-02-18 23:03 G	31589910.30	31589910.46	31589910.62	0.1877	0.0046
Mercury	81779-03-15 20:24 G	31590300.35	31590300.35	31590300.36	0.1670	0.1663
Venus	81779-05-09 00:29 G	31590354.36	31590354.52	31590354.69	0.1741	0.0486
Mercury	81786-08-31 01:56 G	31593025.47	31593025.58	31593025.68	0.1647	0.0665
Mercury	81787-07-11 18:00 G	31593340.13	31593340.25	31593340.37	0.1883	0.1279
Mercury	81788-08-05 06:58 G	31593730.70	31593730.79	31593730.87	0.1665	0.1187
Mercury	81796-01-21 12:44 G	31596455.94	31596456.03	31596456.12	0.1642	0.1089
Mercury	81797-12-26 17:32 G	31597161.12	31597161.23	31597161.34	0.1660	0.0721
Earth	81801-02-27 13:27 G	31598318.90	31598319.06	31598319.22	0.1650	0.0819
Moon	81801-02-27 19:56 G	31598319.17	31598319.33	31598319.48	0.1650	0.0898 *
Mercury	81805-06-14 00:00 G	31599886.45	31599886.50	31599886.54	0.1639	0.1502
Mercury	81807-05-20 04:05 G	31600591.55	31600591.67	31600591.79	0.1655	0.0265
Mercury	81808-03-31 03:36 G	31600907.53	31600907.65	31600907.77	0.1870	0.1200
Mercury	81816-10-09 14:53 G	31604022.00	31604022.12	31604022.24	0.1651	0.0181
Mercury	81817-08-20 23:17 G	31604337.31	31604337.47	31604337.64	0.1877	0.0059
Venus	81817-10-19 09:08 G	31604396.71	31604396.88	31604397.04	0.1790	0.0448
Mercury	81826-03-02 01:41 G	31607452.46	31607452.57	31607452.68	0.1646	0.0619
Mercury	81827-01-10 18:44 G	31607767.16	31607767.28	31607767.41	0.1884	0.1179
Mercury	81828-02-05 06:58 G	31608157.71	31608157.79	31608157.87	0.1665	0.1235
Mercury	81835-07-23 12:44 G	31610882.94	31610883.03	31610883.12	0.1643	0.1040
Mercury	81837-06-27 17:32 G	31611588.12	31611588.23	31611588.33	0.1660	0.0768
Mercury	81844-12-12 23:46 G	31614313.44	31614313.49	31614313.55	0.1638	0.1454
Venus	81845-03-06 08:53 G	31614396.72	31614396.87	31614397.03	0.1737	0.0829
Mercury	81846-11-18 04:05 G	31615018.55	31615018.67	31615018.79	0.1656	0.0314
Mercury	81847-09-30 04:20 G	31615334.56	31615334.68	31615334.79	0.1870	0.1294
Mercury	81856-04-09 14:53 G	31618449.00	31618449.12	31618449.24	0.1651	0.0134
Mercury	81857-02-19 00:15 G	31618764.35	31618764.51	31618764.67	0.1877	0.0146
Mercury	81865-08-31 01:41 G	31621879.46	31621879.57	31621879.68	0.1647	0.0567

Mercury	81866-07-11 19:41 G	31622194.19	31622194.32	31622194.45	0.1883	0.1071
Mercury	81867-08-06 06:58 G	31622584.71	31622584.79	31622584.86	0.1665	0.1286
Mercury	81875-01-21 12:44 G	31625309.94	31625310.03	31625310.12	0.1642	0.0993
Mercury	81876-12-26 17:32 G	31626015.12	31626015.23	31626015.33	0.1660	0.0819
Earth	81880-03-01 16:48 G	31627176.09	31627176.20	31627176.32	0.1647	0.1319
Moon	81880-03-01 18:15 G	31627176.19	31627176.26	31627176.33	0.1647	0.1505 *
Venus	81883-08-16 17:03 G	31628439.05	31628439.21	31628439.36	0.1794	0.0852
Mercury	81884-06-12 23:46 G	31628740.43	31628740.49	31628740.55	0.1638	0.1408
Mercury	81886-05-19 04:05 G	31629445.55	31629445.67	31629445.78	0.1655	0.0361
Mercury	81887-03-31 04:48 G	31629761.60	31629761.70	31629761.81	0.1870	0.1381
Mercury	81895-10-09 14:39 G	31632875.99	31632876.11	31632876.23	0.1651	0.0099
Mercury	81896-08-20 01:12 G	31633191.39	31633191.55	31633191.71	0.1877	0.0248
Mercury	81905-03-02 01:41 G	31636306.46	31636306.57	31636306.68	0.1647	0.0518
Mercury	81906-01-10 20:24 G	31636621.21	31636621.35	31636621.49	0.1883	0.0970
Mercury	81907-02-05 06:58 G	31637011.72	31637011.79	31637011.86	0.1665	0.1332
Venus	81911-01-02 17:32 G	31638439.10	31638439.23	31638439.35	0.1733	0.1169
Mercury	81914-07-23 12:44 G	31639736.93	31639737.03	31639737.12	0.1642	0.0943
Mercury	81916-06-27 17:32 G	31640442.13	31640442.23	31640442.33	0.1660	0.0868
Mercury	81923-12-13 23:46 G	31643167.43	31643167.49	31643167.55	0.1638	0.1358
Mercury	81925-11-18 04:05 G	31643872.55	31643872.67	31643872.78	0.1655	0.0413
Mercury	81926-09-30 05:46 G	31644188.64	31644188.74	31644188.83	0.1870	0.1480
Mercury	81935-04-10 14:53 G	31647303.00	31647303.12	31647303.24	0.1651	0.0052
Mercury	81936-02-20 01:41 G	31647618.41	31647618.57	31647618.73	0.1877	0.0330
Venus	81943-01-01 23:32 G	31650126.39	31650126.48	31650126.57	0.1746	0.1479
Mercury	81944-08-31 01:41 G	31650733.45	31650733.57	31650733.68	0.1646	0.0474
Mercury	81945-07-11 21:08 G	31651048.24	31651048.38	31651048.53	0.1884	0.0870
Mercury	81946-08-06 06:58 G	31651438.73	31651438.79	31651438.85	0.1665	0.1382
Venus	81949-06-14 00:44 G	31652481.41	31652481.53	31652481.65	0.1798	0.1265
Mercury	81954-01-21 12:29 G	31654163.93	31654164.02	31654164.12	0.1642	0.0899
Mercury	81955-12-27 17:17 G	31654869.12	31654869.22	31654869.32	0.1660	0.0910

Mercury	81963-06-13 23:46 G	31657594.42	31657594.49	31657594.56	0.1638	0.1309
Mercury	81965-05-19 04:05 G	31658299.55	31658299.67	31658299.78	0.1656	0.0460
Mercury	81966-03-31 06:29 G	31658615.68	31658615.77	31658615.85	0.1870	0.1576
Mercury	81974-10-09 14:53 G	31661730.00	31661730.12	31661730.23	0.1651	0.0062
Mercury	81975-08-21 02:24 G	31662045.45	31662045.60	31662045.76	0.1877	0.0435
Venus	81976-10-30 02:10 G	31662481.50	31662481.59	31662481.67	0.1730	0.1501
Venus	81981-06-13 08:39 G	31664168.79	31664168.86	31664168.93	0.1785	0.1621
Mercury	81984-03-01 01:41 G	31665160.45	31665160.57	31665160.68	0.1646	0.0424
Mercury	81985-01-09 22:05 G	31665475.27	31665475.42	31665475.56	0.1883	0.0766
Mercury	81986-02-04 06:58 G	31665865.73	31665865.79	31665865.85	0.1665	0.1429
Mercury	81993-07-22 12:29 G	31668590.92	31668591.02	31668591.12	0.1642	0.0850
Mercury	81995-06-27 17:32 G	31669296.13	31669296.23	31669296.32	0.1660	0.0964
Moon	81999-09-04 01:12 G	31670825.36	31670825.55	31670825.73	0.1879	0.0287
Earth	81999-09-04 05:46 G	31670825.55	31670825.74	31670825.92	0.1879	0.0743 *

83RD MILLENNIUM CE

This is a list of transits visible from Mars in the 83rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	82002-12-12 23:46 G	31672021.41	31672021.49	31672021.56	0.1638	0.1267		
Mercury	82004-11-17 04:05 G	31672726.55	31672726.67	31672726.78	0.1655	0.0507		
Mercury	82005-09-29 06:58 G	31673042.72	31673042.79	31673042.86	0.1871	0.1657		
Venus	82008-10-29 07:41 G	31674168.68	31674168.82	31674168.95	0.1742	0.1116		
Mercury	82014-04-09 14:39 G	31676156.99	31676157.11	31676157.23	0.1651	0.0065		

Mercury	82015-02-19 03:36 G	31676472.49	31676472.65	31676472.80	0.1877	0.0545
Venus	82015-04-11 08:39 G	31676523.80	31676523.86	31676523.92	0.1802	0.1671
Mercury	82023-08-31 01:41 G	31679587.45	31679587.57	31679587.68	0.1647	0.0375
Mercury	82024-07-10 22:34 G	31679902.29	31679902.44	31679902.60	0.1883	0.0670
Mercury	82025-08-05 06:58 G	31680292.74	31680292.79	31680292.84	0.1665	0.1478
Mercury	82033-01-20 12:29 G	31683017.92	31683018.02	31683018.12	0.1642	0.0801
Mercury	82034-12-26 17:32 G	31683723.13	31683723.23	31683723.32	0.1660	0.1012
Mercury	82042-06-12 23:46 G	31686448.41	31686448.49	31686448.56	0.1638	0.1215
Mercury	82044-05-18 04:05 G	31687153.55	31687153.67	31687153.78	0.1655	0.0558
Mercury	82045-03-30 07:56 G	31687469.78	31687469.83	31687469.88	0.1870	0.1760
Venus	82047-04-10 16:20 G	31688211.06	31688211.18	31688211.31	0.1789	0.1225
Mercury	82051-11-03 10:48 G	31689878.94	31689878.95	31689878.96	0.1634	0.1623
Mercury	82053-10-08 14:39 G	31690584.00	31690584.11	31690584.23	0.1651	0.0122
Mercury	82054-08-20 03:51 G	31690899.51	31690899.66	31690899.81	0.1877	0.0616
Mercury	82063-03-01 01:27 G	31694014.45	31694014.56	31694014.68	0.1646	0.0334
Mercury	82064-01-09 23:32 G	31694329.32	31694329.48	31694329.63	0.1884	0.0567
Mercury	82065-02-03 06:58 G	31694719.74	31694719.79	31694719.83	0.1665	0.1524
Mercury	82072-07-21 12:29 G	31697444.92	31697445.02	31697445.13	0.1642	0.0753
Mercury	82073-05-31 18:29 G	31697759.22	31697759.27	31697759.31	0.1889	0.1801
Mercury	82074-06-26 17:17 G	31698150.13	31698150.22	31698150.31	0.1660	0.1054
Venus	82074-08-26 15:22 G	31698210.98	31698211.14	31698211.30	0.1738	0.0742
Mercury	82081-12-11 23:46 G	31700875.40	31700875.49	31700875.57	0.1638	0.1170
Mercury	82083-11-17 04:05 G	31701580.55	31701580.67	31701580.78	0.1655	0.0605
Mercury	82084-09-28 08:24 G	31701896.83	31701896.85	31701896.87	0.1870	0.1847
Moon	82085-03-01 15:36 G	31702050.95	31702051.15	31702051.35	0.1654	0.0217
Earth	82085-03-01 17:32 G	31702051.05	31702051.23	31702051.42	0.1654	0.0031 *
Mercury	82091-05-04 10:48 G	31704305.92	31704305.95	31704305.98	0.1634	0.1573
Mercury	82093-04-08 14:39 G	31705010.99	31705011.11	31705011.23	0.1651	0.0160
Mercury	82094-02-18 04:48 G	31705326.55	31705326.70	31705326.85	0.1877	0.0723
Mercury	82102-08-31 01:41 G	31708441.45	31708441.57	31708441.68	0.1646	0.0287

Mercury	82103-07-12 00:15 G	31708756.35	31708756.51	31708756.67	0.1883	0.0468
Mercury	82104-08-05 06:58 G	31709146.75	31709146.79	31709146.82	0.1665	0.1574
Mercury	82112-01-21 12:29 G	31711871.91	31711872.02	31711872.13	0.1642	0.0708
Mercury	82112-11-30 18:44 G	31712186.22	31712186.28	31712186.35	0.1890	0.1720
Venus	82113-02-05 23:46 G	31712253.34	31712253.49	31712253.64	0.1794	0.0811
Mercury	82113-12-26 17:17 G	31712577.14	31712577.22	31712577.31	0.1660	0.1106
Mercury	82121-06-12 23:32 G	31715302.40	31715302.48	31715302.57	0.1638	0.1124
Mercury	82123-05-19 03:51 G	31716007.55	31716007.66	31716007.77	0.1655	0.0649
Mercury	82130-11-03 10:48 G	31718732.91	31718732.95	31718732.99	0.1635	0.1527
Mercury	82132-10-08 14:39 G	31719437.99	31719438.11	31719438.23	0.1651	0.0201
Mercury	82133-08-20 05:32 G	31719753.59	31719753.73	31719753.88	0.1877	0.0827
Venus	82140-06-24 00:00 G	31722253.33	31722253.50	31722253.68	0.1734	0.0407
Mercury	82142-03-01 01:27 G	31722868.45	31722868.56	31722868.68	0.1646	0.0238
Mercury	82143-01-10 00:58 G	31723183.38	31723183.54	31723183.70	0.1884	0.0371
Mercury	82144-02-04 06:58 G	31723573.76	31723573.79	31723573.81	0.1665	0.1620
Mercury	82151-07-22 12:29 G	31726298.91	31726299.02	31726299.13	0.1642	0.0658
Mercury	82152-05-31 19:56 G	31726613.24	31726613.33	31726613.41	0.1890	0.1602
Mercury	82153-06-26 17:17 G	31727004.14	31727004.22	31727004.31	0.1660	0.1155
Mercury	82160-12-11 23:32 G	31729729.39	31729729.48	31729729.57	0.1638	0.1075
Mercury	82162-11-17 03:51 G	31730434.56	31730434.66	31730434.77	0.1655	0.0697
Mercury	82170-05-04 10:48 G	31733159.90	31733159.95	31733159.99	0.1634	0.1483
Mercury	82172-04-08 14:39 G	31733864.99	31733865.11	31733865.23	0.1651	0.0250
Mercury	82173-02-18 06:00 G	31734180.61	31734180.75	31734180.89	0.1877	0.0903
Venus	82178-12-04 07:41 G	31736295.65	31736295.82	31736295.98	0.1797	0.0403
Mercury	82181-08-30 01:27 G	31737295.44	31737295.56	31737295.68	0.1646	0.0190
Mercury	82182-07-11 01:41 G	31737610.41	31737610.57	31737610.73	0.1884	0.0273
Mercury	82191-01-20 12:29 G	31740725.91	31740726.02	31740726.13	0.1642	0.0614
Mercury	82191-11-30 20:39 G	31741040.26	31741040.36	31741040.46	0.1890	0.1499
Mercury	82192-12-25 17:17 G	31741431.14	31741431.22	31741431.30	0.1660	0.1195
Mercury	82200-06-12 23:32 G	31744156.39	31744156.48	31744156.57	0.1638	0.1027

Mercury	82202-05-19 03:51 G	31744861.56	31744861.66	31744861.77	0.1655	0.0747
Venus	82206-04-22 08:10 G	31746295.67	31746295.84	31746296.02	0.1730	0.0054
Mercury	82209-11-03 10:34 G	31747586.89	31747586.94	31747587.00	0.1634	0.1435
Mercury	82211-10-09 14:39 G	31748291.99	31748292.11	31748292.23	0.1651	0.0297
Mercury	82212-08-20 06:58 G	31748607.65	31748607.79	31748607.92	0.1877	0.1003
Mercury	82221-03-01 01:27 G	31751722.44	31751722.56	31751722.68	0.1646	0.0141
Mercury	82222-01-10 02:24 G	31752037.44	31752037.60	31752037.76	0.1883	0.0176
Mercury	82230-07-22 12:29 G	31755152.91	31755153.02	31755153.13	0.1642	0.0567
Mercury	82231-06-01 21:08 G	31755467.28	31755467.38	31755467.49	0.1890	0.1412
Mercury	82232-06-26 17:17 G	31755858.15	31755858.22	31755858.30	0.1660	0.1248
Mercury	82239-12-12 23:32 G	31758583.38	31758583.48	31758583.57	0.1638	0.0986
Mercury	82241-11-17 03:51 G	31759288.56	31759288.66	31759288.77	0.1655	0.0787
Venus	82244-10-01 14:53 G	31760337.95	31760338.12	31760338.30	0.1802	0.0045
Mercury	82249-05-04 10:34 G	31762013.88	31762013.94	31762014.00	0.1634	0.1388
Mercury	82251-04-09 14:39 G	31762718.99	31762719.11	31762719.22	0.1651	0.0343
Mercury	82252-02-19 07:56 G	31763034.70	31763034.83	31763034.95	0.1877	0.1109
Mercury	82260-08-30 01:27 G	31766149.44	31766149.56	31766149.68	0.1646	0.0092
Mercury	82261-07-11 03:08 G	31766464.47	31766464.63	31766464.79	0.1884	0.0079
Mercury	82270-01-20 12:15 G	31769579.90	31769580.01	31769580.13	0.1642	0.0523
Mercury	82270-11-30 22:05 G	31769894.30	31769894.42	31769894.54	0.1890	0.1302
Mercury	82271-12-26 17:17 G	31770285.15	31770285.22	31770285.30	0.1660	0.1294
Venus	82272-02-17 17:03 G	31770338.03	31770338.21	31770338.38	0.1726	0.0281
Mercury	82279-06-12 23:32 G	31773010.38	31773010.48	31773010.57	0.1638	0.0935
Mercury	82281-05-18 03:51 G	31773715.56	31773715.66	31773715.76	0.1655	0.0837
Earth	82283-09-05 10:20 G	31774555.75	31774555.93	31774556.12	0.1871	0.0707
Moon	82283-09-05 19:12 G	31774556.11	31774556.30	31774556.50	0.1871	0.0509 *
Mercury	82288-11-02 10:34 G	31776440.87	31776440.94	31776441.00	0.1634	0.1345
Earth	82290-03-02 17:32 G	31776926.13	31776926.23	31776926.33	0.1662	0.1409
Moon	82290-03-02 18:58 G	31776926.18	31776926.29	31776926.41	0.1662	0.1228 *
Mercury	82290-10-08 14:39 G	31777145.99	31777146.11	31777146.22	0.1651	0.0390

Mercury	82291-08-20 08:10 G	31777461.71	31777461.84	31777461.96	0.1877	0.1178
Mercury	82300-03-01 01:27 G	31780576.44	31780576.56	31780576.67	0.1646	0.0081
Mercury	82301-01-10 04:05 G	31780891.50	31780891.67	31780891.83	0.1884	0.0042
Mercury	82309-07-22 12:15 G	31784006.90	31784007.01	31784007.13	0.1642	0.0475
Mercury	82310-06-01 23:03 G	31784321.33	31784321.46	31784321.58	0.1890	0.1195
Venus	82310-07-30 22:20 G	31784380.27	31784380.43	31784380.60	0.1806	0.0449
Mercury	82311-06-27 17:17 G	31784712.15	31784712.22	31784712.29	0.1660	0.1336
Mercury	82318-12-12 23:32 G	31787437.38	31787437.48	31787437.57	0.1638	0.0891
Mercury	82320-11-17 03:51 G	31788142.56	31788142.66	31788142.76	0.1655	0.0884
Mercury	82328-05-04 10:34 G	31790867.87	31790867.94	31790868.01	0.1634	0.1295
Mercury	82330-04-09 14:39 G	31791572.99	31791573.11	31791573.22	0.1651	0.0437
Mercury	82331-02-19 09:08 G	31791888.76	31791888.88	31791888.99	0.1877	0.1281
Venus	82337-12-16 01:41 G	31794380.41	31794380.57	31794380.74	0.1723	0.0606
Mercury	82339-08-31 01:27 G	31795003.44	31795003.56	31795003.68	0.1646	0.0044
Mercury	82340-07-11 04:34 G	31795318.53	31795318.69	31795318.85	0.1883	0.0117
Mercury	82349-01-20 12:15 G	31798433.90	31798434.01	31798434.13	0.1642	0.0430
Mercury	82349-11-30 23:17 G	31798748.34	31798748.47	31798748.61	0.1890	0.1117
Mercury	82350-12-26 17:17 G	31799139.16	31799139.22	31799139.28	0.1660	0.1385
Mercury	82358-06-12 23:17 G	31801864.37	31801864.47	31801864.57	0.1638	0.0846
Mercury	82360-05-18 03:51 G	31802569.56	31802569.66	31802569.76	0.1655	0.0927
Mercury	82367-11-03 10:34 G	31805294.86	31805294.94	31805295.01	0.1634	0.1250
Moon	82369-03-05 15:08 G	31805782.96	31805783.13	31805783.30	0.1659	0.0511
Earth	82369-03-05 20:53 G	31805783.21	31805783.37	31805783.54	0.1659	0.0762 *
Mercury	82369-10-08 14:24 G	31805999.99	31806000.10	31806000.22	0.1651	0.0484
Mercury	82370-08-20 09:51 G	31806315.80	31806315.91	31806316.02	0.1877	0.1379
Venus	82376-05-27 05:46 G	31808422.59	31808422.74	31808422.89	0.1810	0.0884
Mercury	82379-03-01 01:27 G	31809430.44	31809430.56	31809430.67	0.1646	0.0071
Mercury	82380-01-10 05:17 G	31809745.56	31809745.72	31809745.88	0.1884	0.0207
Mercury	82388-07-21 12:15 G	31812860.90	31812861.01	31812861.13	0.1642	0.0381
Mercury	82389-06-01 00:29 G	31813175.38	31813175.52	31813175.66	0.1890	0.1002

Mercury	82390-06-26 17:17 G	31813566.16	31813566.22	31813566.28	0.1660	0.1433
Mercury	82397-12-11 23:17 G	31816291.37	31816291.47	31816291.58	0.1638	0.0799
Mercury	82399-11-17 03:51 G	31816996.56	31816996.66	31816996.76	0.1655	0.0975
Venus	82403-10-13 10:34 G	31818422.79	31818422.94	31818423.09	0.1719	0.0927
Mercury	82407-05-04 10:20 G	31819721.86	31819721.93	31819722.01	0.1634	0.1208
Mercury	82409-04-08 14:39 G	31820426.99	31820427.11	31820427.22	0.1650	0.0530
Mercury	82410-02-18 10:20 G	31820742.83	31820742.93	31820743.03	0.1877	0.1453
Mercury	82416-09-23 21:36 G	31823152.39	31823152.40	31823152.42	0.1631	0.1605
Mercury	82418-08-30 01:12 G	31823857.43	31823857.55	31823857.67	0.1646	0.0089
Mercury	82419-07-11 06:15 G	31824172.60	31824172.76	31824172.92	0.1884	0.0308
Mercury	82428-01-20 12:15 G	31827287.89	31827288.01	31827288.13	0.1642	0.0335
Mercury	82428-11-30 01:12 G	31827602.40	31827602.55	31827602.69	0.1890	0.0905
Mercury	82429-12-25 17:17 G	31827993.16	31827993.22	31827993.27	0.1660	0.1474
Venus	82435-10-12 14:53 G	31830110.06	31830110.12	31830110.18	0.1731	0.1616
Mercury	82437-06-11 23:17 G	31830718.37	31830718.47	31830718.58	0.1638	0.0752
Mercury	82439-05-18 03:51 G	31831423.57	31831423.66	31831423.75	0.1655	0.1023
Venus	82442-03-24 12:58 G	31832464.93	31832465.04	31832465.16	0.1814	0.1315
Mercury	82446-11-02 10:20 G	31834148.85	31834148.93	31834149.01	0.1634	0.1160
Mercury	82448-10-07 14:24 G	31834853.99	31834854.10	31834854.22	0.1650	0.0576
Mercury	82449-08-19 11:03 G	31835169.87	31835169.96	31835170.05	0.1877	0.1548
Mercury	82456-03-24 21:36 G	31837579.37	31837579.40	31837579.43	0.1630	0.1559
Mercury	82458-02-28 01:12 G	31838284.43	31838284.55	31838284.67	0.1646	0.0139
Mercury	82459-01-09 06:44 G	31838599.62	31838599.78	31838599.94	0.1884	0.0395
Mercury	82467-07-21 12:15 G	31841714.89	31841715.01	31841715.13	0.1642	0.0291
Mercury	82468-05-31 01:41 G	31842029.43	31842029.57	31842029.72	0.1890	0.0817
Mercury	82469-06-25 17:17 G	31842420.17	31842420.22	31842420.26	0.1660	0.1524
Venus	82469-08-09 19:12 G	31842465.19	31842465.30	31842465.42	0.1715	0.1246
Venus	82474-03-23 22:05 G	31844152.35	31844152.42	31844152.48	0.1801	0.1655
Mercury	82476-12-10 23:17 G	31845145.36	31845145.47	31845145.57	0.1638	0.0711
Mercury	82478-11-16 03:51 G	31845850.57	31845850.66	31845850.75	0.1655	0.1064

Mercury	82486-05-03 10:20 G	31848575.85	31848575.93	31848576.02	0.1634	0.1114
Mercury	82488-04-07 14:24 G	31849280.99	31849281.10	31849281.21	0.1651	0.0619
Mercury	82489-02-17 12:00 G	31849596.93	31849597.00	31849597.07	0.1877	0.1650
Mercury	82495-09-23 21:36 G	31852006.36	31852006.40	31852006.44	0.1630	0.1513
Mercury	82497-08-29 01:12 G	31852711.43	31852711.55	31852711.67	0.1646	0.0188
Mercury	82498-07-10 07:27 G	31853026.66	31853026.81	31853026.97	0.1884	0.0489
Venus	82501-08-09 23:03 G	31854152.35	31854152.46	31854152.58	0.1727	0.1261
Mercury	82507-01-20 12:15 G	31856141.89	31856142.01	31856142.12	0.1642	0.0249
Mercury	82507-12-01 02:39 G	31856456.46	31856456.61	31856456.76	0.1890	0.0712
Venus	82508-01-20 19:27 G	31856507.28	31856507.31	31856507.34	0.1818	0.1788
Mercury	82508-12-25 17:17 G	31856847.18	31856847.22	31856847.25	0.1660	0.1569
Mercury	82516-06-11 23:17 G	31859572.36	31859572.47	31859572.58	0.1638	0.0662
Mercury	82518-05-18 03:51 G	31860277.57	31860277.66	31860277.75	0.1655	0.1113
Mercury	82525-11-02 10:20 G	31863002.84	31863002.93	31863003.02	0.1634	0.1072
Mercury	82527-10-08 14:24 G	31863707.99	31863708.10	31863708.21	0.1650	0.0665
Mercury	82528-08-19 12:15 G	31864023.95	31864024.01	31864024.07	0.1877	0.1717
Mercury	82535-03-25 21:36 G	31866433.35	31866433.40	31866433.45	0.1631	0.1469
Venus	82535-06-08 04:20 G	31866507.61	31866507.68	31866507.75	0.1712	0.1558
Mercury	82537-02-28 01:12 G	31867138.43	31867138.55	31867138.66	0.1646	0.0227
Mercury	82538-01-09 08:24 G	31867453.70	31867453.85	31867454.00	0.1884	0.0588
Venus	82540-01-20 05:03 G	31868194.58	31868194.71	31868194.84	0.1806	0.1218
Mercury	82546-07-21 12:15 G	31870568.89	31870569.01	31870569.12	0.1642	0.0203
Mercury	82547-06-01 03:22 G	31870883.49	31870883.64	31870883.80	0.1890	0.0611
Mercury	82548-06-25 17:03 G	31871274.19	31871274.21	31871274.24	0.1660	0.1612
Mercury	82555-12-11 23:17 G	31873999.36	31873999.47	31873999.57	0.1638	0.0619
Mercury	82556-10-20 21:51 G	31874313.38	31874313.41	31874313.44	0.1896	0.1866
Mercury	82557-11-16 03:51 G	31874704.57	31874704.66	31874704.74	0.1655	0.1159
Mercury	82565-05-03 10:20 G	31877429.84	31877429.93	31877430.02	0.1634	0.1024
Mercury	82567-04-08 14:24 G	31878134.99	31878135.10	31878135.21	0.1650	0.0710
Venus	82567-06-07 08:10 G	31878194.69	31878194.84	31878194.99	0.1723	0.0937

Mercury	82568-02-18 13:12 G	31878451.02	31878451.05	31878451.09	0.1877	0.1818
Earth	82574-03-05 19:27 G	31880658.14	31880658.31	31880658.48	0.1667	0.0685
Moon	82574-03-06 01:27 G	31880658.37	31880658.56	31880658.75	0.1667	0.0408 *
Mercury	82574-09-23 21:36 G	31880860.34	31880860.40	31880860.45	0.1630	0.1425
Mercury	82576-08-29 01:12 G	31881565.43	31881565.55	31881565.67	0.1646	0.0273
Mercury	82577-07-10 08:53 G	31881880.72	31881880.87	31881881.02	0.1884	0.0673
Mercury	82586-01-19 12:00 G	31884995.89	31884996.00	31884996.12	0.1642	0.0164
Mercury	82586-11-30 03:51 G	31885310.51	31885310.66	31885310.82	0.1890	0.0532
Mercury	82587-12-25 17:17 G	31885701.22	31885701.22	31885701.22	0.1660	0.1659
Mercury	82595-06-11 23:03 G	31888426.35	31888426.46	31888426.57	0.1638	0.0574
Mercury	82596-04-20 22:48 G	31888740.39	31888740.45	31888740.52	0.1896	0.1750
Mercury	82597-05-17 03:51 G	31889131.57	31889131.66	31889131.74	0.1655	0.1201
Mercury	82604-11-02 10:20 G	31891856.83	31891856.93	31891857.02	0.1634	0.0980
Venus	82605-11-17 12:29 G	31892236.86	31892237.02	31892237.17	0.1810	0.0791
Mercury	82606-10-08 14:24 G	31892561.99	31892562.10	31892562.20	0.1650	0.0755
Mercury	82614-03-25 21:22 G	31895287.33	31895287.39	31895287.46	0.1630	0.1380
Mercury	82616-02-29 01:12 G	31895992.43	31895992.55	31895992.66	0.1646	0.0319
Mercury	82617-01-09 09:36 G	31896307.75	31896307.90	31896308.05	0.1884	0.0765
Mercury	82625-07-21 12:00 G	31899422.89	31899423.00	31899423.12	0.1642	0.0120
Mercury	82626-06-01 05:03 G	31899737.55	31899737.71	31899737.86	0.1890	0.0424
Venus	82633-04-04 16:20 G	31902237.02	31902237.18	31902237.35	0.1719	0.0598
Mercury	82634-12-11 23:03 G	31902853.35	31902853.46	31902853.57	0.1638	0.0528
Mercury	82635-10-21 23:17 G	31903167.39	31903167.47	31903167.54	0.1896	0.1675
Mercury	82636-11-16 03:51 G	31903558.58	31903558.66	31903558.73	0.1655	0.1249
Mercury	82644-05-03 10:05 G	31906283.83	31906283.92	31906284.02	0.1634	0.0938
Mercury	82646-04-08 14:24 G	31906988.99	31906989.10	31906989.20	0.1650	0.0799
Earth	82653-03-08 23:17 G	31909515.39	31909515.47	31909515.54	0.1663	0.1511
Moon	82653-03-09 04:20 G	31909515.62	31909515.68	31909515.74	0.1663	0.1548
Mercury	82653-09-23 21:22 G	31909714.33	31909714.39	31909714.46	0.1630	0.1335
Mercury	82655-08-30 00:58 G	31910419.43	31910419.54	31910419.66	0.1646	0.0364

Mercury	82656-07-10 10:34 G	31910734.80	31910734.94	31910735.08	0.1884	0.0866
Mercury	82665-01-19 12:00 G	31913849.88	31913850.00	31913850.12	0.1642	0.0069
Mercury	82665-11-30 05:32 G	31914164.57	31914164.73	31914164.89	0.1890	0.0329
Venus	82671-09-14 19:12 G	31916279.13	31916279.30	31916279.47	0.1814	0.0345
Mercury	82674-06-11 23:03 G	31917280.35	31917280.46	31917280.57	0.1638	0.0482
Mercury	82675-04-22 00:15 G	31917594.42	31917594.51	31917594.60	0.1896	0.1563
Mercury	82676-05-17 03:51 G	31917985.58	31917985.66	31917985.73	0.1655	0.1295
Mercury	82683-11-02 10:05 G	31920710.82	31920710.92	31920711.02	0.1634	0.0891
Mercury	82685-10-07 14:24 G	31921416.00	31921416.10	31921416.20	0.1650	0.0846
Mercury	82693-03-24 21:22 G	31924141.32	31924141.39	31924141.46	0.1630	0.1291
Mercury	82695-02-28 00:58 G	31924846.43	31924846.54	31924846.66	0.1646	0.0412
Mercury	82696-01-09 11:03 G	31925161.82	31925161.96	31925162.10	0.1884	0.0945
Venus	82699-01-31 01:27 G	31926279.39	31926279.56	31926279.74	0.1716	0.0289
Mercury	82704-07-21 12:00 G	31928276.88	31928277.00	31928277.12	0.1642	0.0023
Mercury	82705-06-01 06:15 G	31928591.60	31928591.76	31928591.92	0.1890	0.0239
Mercury	82713-12-11 23:03 G	31931707.34	31931707.46	31931707.57	0.1638	0.0443
Mercury	82714-10-22 01:12 G	31932021.44	31932021.55	31932021.65	0.1896	0.1459
Mercury	82715-11-17 03:36 G	31932412.58	31932412.65	31932412.72	0.1655	0.1334
Mercury	82723-05-04 10:05 G	31935137.82	31935137.92	31935138.02	0.1634	0.0845
Mercury	82725-04-08 14:24 G	31935843.00	31935843.10	31935843.20	0.1650	0.0891
Mercury	82732-09-23 21:22 G	31938568.31	31938568.39	31938568.46	0.1630	0.1245
Mercury	82734-08-30 01:12 G	31939273.43	31939273.55	31939273.66	0.1646	0.0457
Mercury	82735-07-11 11:46 G	31939588.86	31939588.99	31939589.12	0.1884	0.1039
Venus	82737-07-13 02:24 G	31940321.43	31940321.60	31940321.77	0.1818	0.0104
Mercury	82744-01-20 12:00 G	31942703.88	31942704.00	31942704.12	0.1642	0.0029
Mercury	82744-11-30 06:58 G	31943018.63	31943018.79	31943018.96	0.1890	0.0148
Mercury	82753-06-11 23:03 G	31946134.34	31946134.46	31946134.57	0.1638	0.0394
Mercury	82754-04-22 01:27 G	31946448.45	31946448.56	31946448.68	0.1896	0.1377
Mercury	82755-05-18 03:36 G	31946839.59	31946839.65	31946839.72	0.1655	0.1384
Mercury	82762-11-02 10:05 G	31949564.82	31949564.92	31949565.02	0.1634	0.0805

Mercury	82764-10-07 14:24 G	31950270.00	31950270.10	31950270.19	0.1650	0.0935
Venus	82764-11-28 10:34 G	31950321.77	31950321.94	31950322.12	0.1712	0.0035
Mercury	82772-03-24 21:22 G	31952995.31	31952995.39	31952995.47	0.1630	0.1202
Mercury	82774-02-28 00:58 G	31953700.43	31953700.54	31953700.65	0.1646	0.0492
Mercury	82775-01-09 12:44 G	31954015.90	31954016.03	31954016.15	0.1884	0.1137
Mercury	82781-08-15 08:39 G	31956425.84	31956425.86	31956425.88	0.1627	0.1593
Mercury	82783-07-21 12:00 G	31957130.88	31957131.00	31957131.12	0.1642	0.0072
Mercury	82784-05-31 07:56 G	31957445.66	31957445.83	31957445.99	0.1890	0.0054
Mercury	82792-12-10 23:03 G	31960561.34	31960561.46	31960561.57	0.1638	0.0353
Mercury	82793-10-21 02:24 G	31960875.48	31960875.60	31960875.72	0.1896	0.1274
Mercury	82794-11-16 03:36 G	31961266.60	31961266.65	31961266.71	0.1655	0.1429
Mercury	82802-05-03 10:05 G	31963991.81	31963991.92	31963992.02	0.1634	0.0757
Venus	82803-05-10 09:08 G	31964363.72	31964363.88	31964364.04	0.1822	0.0556
Mercury	82804-04-07 14:10 G	31964697.00	31964697.09	31964697.19	0.1650	0.0981
Mercury	82811-09-23 21:08 G	31967422.30	31967422.38	31967422.47	0.1630	0.1161
Mercury	82813-08-29 00:58 G	31968127.43	31968127.54	31968127.66	0.1646	0.0543
Mercury	82814-07-10 13:12 G	31968442.92	31968443.05	31968443.17	0.1884	0.1216
Mercury	82821-02-13 08:24 G	31970852.82	31970852.85	31970852.88	0.1627	0.1552
Mercury	82823-01-19 12:00 G	31971557.88	31971558.00	31971558.11	0.1641	0.0122
Mercury	82823-11-30 08:24 G	31971872.69	31971872.85	31971873.01	0.1890	0.0041
Venus	82830-09-25 19:41 G	31974364.15	31974364.32	31974364.49	0.1708	0.0335
Mercury	82832-06-10 22:48 G	31974988.34	31974988.45	31974988.57	0.1638	0.0307
Mercury	82833-04-21 03:22 G	31975302.52	31975302.64	31975302.77	0.1896	0.1163
Mercury	82834-05-17 03:36 G	31975693.60	31975693.65	31975693.70	0.1655	0.1467
Mercury	82841-11-01 10:05 G	31978418.81	31978418.92	31978419.02	0.1634	0.0714
Mercury	82843-10-07 14:10 G	31979124.00	31979124.09	31979124.19	0.1650	0.1024
Mercury	82851-03-24 21:08 G	31981849.30	31981849.38	31981849.47	0.1630	0.1114
Mercury	82853-02-27 00:58 G	31982554.43	31982554.54	31982554.65	0.1646	0.0586
Mercury	82854-01-08 13:56 G	31982869.96	31982870.08	31982870.19	0.1884	0.1307
Moon	82858-03-08 16:05 G	31984389.98	31984390.17	31984390.37	0.1672	0.0062

Earth	82858-03-08 20:53 G	31984390.18	31984390.37	31984390.56	0.1672	0.0031	*
Mercury	82860-08-14 08:24 G	31985279.81	31985279.85	31985279.90	0.1627	0.1506	
Mercury	82862-07-20 12:00 G	31985984.88	31985985.00	31985985.11	0.1641	0.0168	
Mercury	82863-05-31 09:22 G	31986299.73	31986299.89	31986300.05	0.1890	0.0144	
Venus	82869-03-06 16:05 G	31988406.03	31988406.17	31988406.31	0.1826	0.1010	
Mercury	82871-12-10 22:48 G	31989415.34	31989415.45	31989415.57	0.1637	0.0264	
Mercury	82872-10-20 03:51 G	31989729.52	31989729.66	31989729.79	0.1896	0.1090	
Mercury	82873-11-15 03:36 G	31990120.61	31990120.65	31990120.70	0.1655	0.1515	
Mercury	82881-05-02 09:51 G	31992845.81	31992845.91	31992846.02	0.1634	0.0673	
Mercury	82883-04-07 14:10 G	31993551.00	31993551.09	31993551.18	0.1650	0.1067	
Mercury	82890-09-22 21:08 G	31996276.30	31996276.38	31996276.47	0.1630	0.1070	
Mercury	82892-08-28 00:58 G	31996981.43	31996981.54	31996981.65	0.1646	0.0627	
Mercury	82893-07-09 14:53 G	31997297.01	31997297.12	31997297.22	0.1884	0.1407	
Venus	82896-07-23 04:48 G	31998406.54	31998406.70	31998406.87	0.1705	0.0640	
Mercury	82900-02-13 08:24 G	31999706.80	31999706.85	31999706.90	0.1627	0.1462	
Mercury	82902-01-19 12:00 G	32000411.88	32000412.00	32000412.11	0.1642	0.0212	
Mercury	82902-11-30 10:05 G	32000726.75	32000726.92	32000727.08	0.1890	0.0237	
Mercury	82911-06-11 22:48 G	32003842.33	32003842.45	32003842.57	0.1637	0.0216	
Mercury	82912-04-21 04:48 G	32004156.56	32004156.70	32004156.84	0.1896	0.0980	
Mercury	82913-05-17 03:36 G	32004547.62	32004547.65	32004547.69	0.1655	0.1561	
Mercury	82920-11-01 09:51 G	32007272.81	32007272.91	32007273.02	0.1634	0.0627	
Mercury	82922-10-07 14:10 G	32007978.01	32007978.09	32007978.18	0.1650	0.1112	
Mercury	82930-03-24 21:08 G	32010703.29	32010703.38	32010703.47	0.1630	0.1028	
Moon	82930-09-11 21:22 G	32010874.21	32010874.39	32010874.56	0.1858	0.0833	
Earth	82930-09-12 06:44 G	32010874.65	32010874.78	32010874.90	0.1859	0.1453	
Mercury	82932-02-28 00:58 G	32011408.43	32011408.54	32011408.65	0.1646	0.0673	
Mercury	82933-01-08 15:08 G	32011724.04	32011724.13	32011724.23	0.1884	0.1481	
Venus	82935-01-02 22:05 G	32012448.33	32012448.42	32012448.52	0.1831	0.1503	
Mercury	82939-08-15 08:24 G	32014133.79	32014133.85	32014133.90	0.1627	0.1420	
Mercury	82941-07-20 11:46 G	32014838.87	32014838.99	32014839.11	0.1641	0.0246	

Mercury	82942-05-31 10:48 G	32015153.79	32015153.95	32015154.11	0.1890	0.0324
Mercury	82950-12-10 22:48 G	32018269.33	32018269.45	32018269.57	0.1637	0.0175
Mercury	82951-10-21 05:46 G	32018583.59	32018583.74	32018583.88	0.1896	0.0878
Mercury	82952-11-15 03:36 G	32018974.62	32018974.65	32018974.68	0.1654	0.1599
Mercury	82960-05-02 09:51 G	32021699.80	32021699.91	32021700.02	0.1634	0.0582
Mercury	82962-04-07 14:10 G	32022405.01	32022405.09	32022405.18	0.1650	0.1156
Venus	82962-05-21 14:10 G	32022448.95	32022449.09	32022449.24	0.1702	0.0938
Venus	82967-01-02 09:08 G	32024135.80	32024135.88	32024135.96	0.1818	0.1587
Mercury	82969-09-22 21:08 G	32025130.29	32025130.38	32025130.47	0.1630	0.0982
Mercury	82971-08-29 00:58 G	32025835.43	32025835.54	32025835.65	0.1646	0.0718
Mercury	82972-07-09 16:05 G	32026151.08	32026151.17	32026151.25	0.1884	0.1574
Mercury	82979-02-13 08:24 G	32028560.79	32028560.85	32028560.91	0.1626	0.1376
Mercury	82981-01-18 11:46 G	32029265.87	32029265.99	32029266.11	0.1641	0.0291
Mercury	82981-11-29 11:32 G	32029580.82	32029580.98	32029581.14	0.1890	0.0417
Mercury	82990-06-10 22:48 G	32032696.33	32032696.45	32032696.57	0.1637	0.0129
Mercury	82991-04-21 06:15 G	32033010.61	32033010.76	32033010.90	0.1896	0.0798
Mercury	82992-05-16 03:36 G	32033401.65	32033401.65	32033401.66	0.1655	0.1647
Venus	82994-05-20 17:03 G	32034136.13	32034136.21	32034136.29	0.1712	0.1492
Mercury	82999-11-01 09:51 G	32036126.80	32036126.91	32036127.02	0.1633	0.0541

84TH MILLENNIUM CE

This is a list of transits visible from Mars in the 84th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mercury	83001-10-07 14:10 G	32036832.01	32036832.09	32036832.17	0.1650	0.1198
Mercury	83009-03-24 21:08 G	32039557.28	32039557.38	32039557.47	0.1630	0.0939
Mercury	83011-02-28 00:44 G	32040262.43	32040262.53	32040262.64	0.1645	0.0761
Mercury	83012-01-09 16:48 G	32040578.13	32040578.20	32040578.28	0.1884	0.1671
Mercury	83018-08-15 08:24 G	32042987.78	32042987.85	32042987.91	0.1626	0.1332
Mercury	83020-07-20 11:46 G	32043692.88	32043692.99	32043693.11	0.1641	0.0338
Mercury	83021-05-31 12:15 G	32044007.85	32044008.01	32044008.17	0.1890	0.0511
Venus	83028-03-18 23:17 G	32046491.35	32046491.47	32046491.59	0.1698	0.1228
Mercury	83029-12-10 22:48 G	32047123.33	32047123.45	32047123.57	0.1637	0.0095
Mercury	83030-10-21 06:58 G	32047437.64	32047437.79	32047437.95	0.1896	0.0697
Venus	83032-10-30 16:05 G	32048178.04	32048178.17	32048178.30	0.1822	0.1140
Mercury	83039-05-03 09:51 G	32050553.80	32050553.91	32050554.02	0.1634	0.0493
Mercury	83041-04-07 14:10 G	32051259.01	32051259.09	32051259.17	0.1650	0.1243
Mercury	83048-09-22 20:53 G	32053984.28	32053984.37	32053984.47	0.1630	0.0899
Mercury	83050-08-29 00:58 G	32054689.44	32054689.54	32054689.64	0.1646	0.0806
Mercury	83051-07-10 17:17 G	32055005.17	32055005.22	32055005.28	0.1884	0.1744
Mercury	83058-02-13 08:10 G	32057414.77	32057414.84	32057414.91	0.1626	0.1290
Mercury	83060-01-19 11:46 G	32058119.87	32058119.99	32058120.10	0.1641	0.0375
Venus	83060-03-18 01:41 G	32058178.44	32058178.57	32058178.70	0.1708	0.1172
Mercury	83060-11-29 12:58 G	32058434.88	32058435.04	32058435.19	0.1890	0.0596
Earth	83063-03-09 16:05 G	32059265.10	32059265.17	32059265.23	0.1682	0.1565
Moon	83063-03-09 21:08 G	32059265.33	32059265.38	32059265.44	0.1682	0.1590
Mercury	83069-06-10 22:48 G	32061550.33	32061550.45	32061550.56	0.1637	0.0070
Mercury	83070-04-21 07:56 G	32061864.68	32061864.83	32061864.99	0.1896	0.0590
Mercury	83078-11-01 09:51 G	32064980.80	32064980.91	32064981.02	0.1634	0.0450
Mercury	83079-09-11 01:56 G	32065294.55	32065294.58	32065294.61	0.1902	0.1854
Mercury	83080-10-06 14:10 G	32065686.02	32065686.09	32065686.16	0.1650	0.1288
Mercury	83088-03-23 20:53 G	32068411.27	32068411.37	32068411.47	0.1630	0.0853
Mercury	83090-02-27 00:58 G	32069116.44	32069116.54	32069116.64	0.1645	0.0849
Mercury	83091-01-08 18:15 G	32069432.23	32069432.26	32069432.29	0.1884	0.1835

Venus	83094-01-14 08:53 G	32070533.79	32070533.87	32070533.94	0.1695	0.1516
Mercury	83097-08-14 08:10 G	32071841.77	32071841.84	32071841.92	0.1626	0.1244
Venus	83098-08-27 22:34 G	32072220.28	32072220.44	32072220.60	0.1826	0.0675
Mercury	83099-07-20 11:46 G	32072546.88	32072546.99	32072547.10	0.1641	0.0422
Mercury	83100-05-31 13:41 G	32072861.92	32072862.07	32072862.22	0.1890	0.0696
Mercury	83108-12-10 22:34 G	32075977.33	32075977.44	32075977.56	0.1637	0.0061
Mercury	83109-10-21 08:24 G	32076291.69	32076291.85	32076292.01	0.1896	0.0517
Mercury	83118-05-03 09:51 G	32079407.79	32079407.91	32079408.02	0.1633	0.0414
Mercury	83119-03-13 03:08 G	32079721.56	32079721.63	32079721.69	0.1902	0.1745
Mercury	83120-04-07 14:10 G	32080113.02	32080113.09	32080113.16	0.1650	0.1329
Venus	83126-01-14 11:32 G	32082220.83	32082220.98	32082221.13	0.1705	0.0881
Mercury	83127-09-23 20:53 G	32082838.27	32082838.37	32082838.47	0.1630	0.0808
Mercury	83129-08-29 00:58 G	32083543.44	32083543.54	32083543.64	0.1645	0.0893
Mercury	83137-02-13 08:10 G	32086268.76	32086268.84	32086268.92	0.1626	0.1202
Mercury	83139-01-19 11:46 G	32086973.87	32086973.99	32086974.10	0.1641	0.0465
Mercury	83139-11-30 14:24 G	32087288.95	32087289.10	32087289.25	0.1890	0.0779
Moon	83142-03-12 19:41 G	32088122.16	32088122.32	32088122.48	0.1678	0.0731
Earth	83142-03-12 21:51 G	32088122.24	32088122.41	32088122.58	0.1678	0.0736 *
Mercury	83146-07-06 19:41 G	32089699.29	32089699.32	32089699.34	0.1623	0.1585
Mercury	83148-06-10 22:34 G	32090404.33	32090404.44	32090404.56	0.1637	0.0077
Mercury	83149-04-21 09:22 G	32090718.73	32090718.89	32090719.05	0.1896	0.0409
Mercury	83157-11-01 09:51 G	32093834.79	32093834.91	32093835.02	0.1633	0.0366
Mercury	83158-09-11 03:36 G	32094148.57	32094148.65	32094148.72	0.1902	0.1661
Mercury	83159-10-07 14:10 G	32094540.03	32094540.09	32094540.15	0.1650	0.1374
Venus	83164-06-25 05:32 G	32096262.55	32096262.73	32096262.90	0.1830	0.0220
Mercury	83167-03-24 20:53 G	32097265.27	32097265.37	32097265.47	0.1630	0.0767
Mercury	83169-02-27 00:58 G	32097970.44	32097970.54	32097970.63	0.1645	0.0936
Mercury	83176-08-14 08:10 G	32100695.76	32100695.84	32100695.92	0.1626	0.1160
Mercury	83178-07-20 11:46 G	32101400.87	32101400.99	32101401.10	0.1641	0.0508
Mercury	83179-05-31 15:08 G	32101715.99	32101716.13	32101716.28	0.1890	0.0875

Mercury	83186-01-04 19:27 G	32104126.28	32104126.31	32104126.35	0.1623	0.1543
Mercury	83187-12-10 22:34 G	32104831.32	32104831.44	32104831.56	0.1637	0.0095
Mercury	83188-10-20 10:20 G	32105145.77	32105145.93	32105146.09	0.1896	0.0311
Venus	83191-11-11 20:39 G	32106263.20	32106263.36	32106263.53	0.1702	0.0582
Mercury	83197-05-02 09:51 G	32108261.79	32108261.91	32108262.02	0.1633	0.0324
Mercury	83198-03-12 04:20 G	32108575.59	32108575.68	32108575.78	0.1902	0.1557
Mercury	83199-04-07 14:10 G	32108967.03	32108967.09	32108967.15	0.1650	0.1418
Mercury	83206-09-22 20:53 G	32111692.26	32111692.37	32111692.47	0.1630	0.0722
Mercury	83208-08-28 00:58 G	32112397.44	32112397.54	32112397.63	0.1645	0.0981
Earth	83214-09-13 16:05 G	32114604.98	32114605.17	32114605.37	0.1850	0.0363
Moon	83214-09-13 22:34 G	32114605.26	32114605.44	32114605.63	0.1850	0.0273 *
Mercury	83216-02-13 08:10 G	32115122.75	32115122.84	32115122.92	0.1626	0.1116
Mercury	83218-01-18 11:46 G	32115827.88	32115827.99	32115828.10	0.1641	0.0553
Mercury	83218-11-29 15:51 G	32116143.02	32116143.16	32116143.30	0.1890	0.0961
Mercury	83225-07-05 19:27 G	32118553.27	32118553.31	32118553.35	0.1623	0.1502
Mercury	83227-06-10 22:34 G	32119258.32	32119258.44	32119258.56	0.1637	0.0138
Mercury	83228-04-20 10:48 G	32119572.79	32119572.95	32119573.11	0.1896	0.0230
Venus	83230-04-22 11:46 G	32120304.82	32120304.99	32120305.16	0.1834	0.0264
Mercury	83236-10-31 09:36 G	32122688.78	32122688.90	32122689.02	0.1633	0.0281
Mercury	83237-09-10 05:17 G	32123002.62	32123002.72	32123002.83	0.1902	0.1455
Mercury	83238-10-06 14:10 G	32123394.04	32123394.09	32123394.14	0.1650	0.1459
Mercury	83246-03-23 20:53 G	32126119.26	32126119.37	32126119.48	0.1630	0.0678
Mercury	83248-02-27 00:44 G	32126824.44	32126824.53	32126824.63	0.1645	0.1021
Mercury	83255-08-14 08:10 G	32129549.75	32129549.84	32129549.92	0.1626	0.1073
Mercury	83257-07-19 11:46 G	32130254.88	32130254.99	32130255.10	0.1641	0.0597
Venus	83257-09-08 06:15 G	32130305.59	32130305.76	32130305.94	0.1698	0.0295
Mercury	83258-05-30 16:48 G	32130570.06	32130570.20	32130570.33	0.1890	0.1054
Mercury	83265-01-03 19:27 G	32132980.26	32132980.31	32132980.36	0.1623	0.1456
Mercury	83266-12-09 22:34 G	32133685.32	32133685.44	32133685.56	0.1637	0.0177
Mercury	83267-10-20 11:46 G	32133999.82	32133999.99	32134000.15	0.1896	0.0134

Mercury	83276-05-01 09:36 G	32137115.79	32137115.90	32137116.02	0.1633	0.0238
Mercury	83277-03-11 06:00 G	32137429.64	32137429.75	32137429.86	0.1902	0.1365
Mercury	83278-04-06 14:10 G	32137821.04	32137821.09	32137821.14	0.1650	0.1504
Mercury	83285-09-21 20:53 G	32140546.26	32140546.37	32140546.47	0.1630	0.0639
Mercury	83287-08-28 00:58 G	32141251.45	32141251.54	32141251.63	0.1645	0.1067
Mercury	83295-02-12 07:56 G	32143976.74	32143976.83	32143976.92	0.1626	0.1031
Venus	83296-02-17 18:15 G	32144347.10	32144347.26	32144347.42	0.1838	0.0737
Mercury	83297-01-17 11:32 G	32144681.87	32144681.98	32144682.09	0.1641	0.0636
Mercury	83297-11-28 17:32 G	32144997.10	32144997.23	32144997.35	0.1890	0.1139
Mercury	83304-07-05 19:27 G	32147407.25	32147407.31	32147407.37	0.1623	0.1413
Mercury	83306-06-10 22:34 G	32148112.32	32148112.44	32148112.56	0.1637	0.0220
Mercury	83307-04-21 12:44 G	32148426.86	32148427.03	32148427.19	0.1896	0.0052
Mercury	83315-11-01 09:36 G	32151542.79	32151542.90	32151543.02	0.1633	0.0194
Mercury	83316-09-10 06:44 G	32151856.66	32151856.78	32151856.90	0.1902	0.1270
Mercury	83317-10-06 14:10 G	32152248.05	32152248.09	32152248.13	0.1650	0.1549
Venus	83323-07-07 15:51 G	32154347.98	32154348.16	32154348.34	0.1695	0.0007
Mercury	83325-03-23 20:39 G	32154973.26	32154973.36	32154973.47	0.1630	0.0596
Mercury	83327-02-27 00:58 G	32155678.45	32155678.54	32155678.62	0.1645	0.1111
Mercury	83334-08-14 07:56 G	32158403.74	32158403.83	32158403.93	0.1626	0.0988
Mercury	83336-07-19 11:32 G	32159108.88	32159108.98	32159109.09	0.1641	0.0685
Mercury	83337-05-30 18:15 G	32159424.14	32159424.26	32159424.38	0.1890	0.1230
Mercury	83344-01-04 19:12 G	32161834.24	32161834.30	32161834.36	0.1623	0.1376
Mercury	83345-12-09 22:34 G	32162539.32	32162539.44	32162539.56	0.1637	0.0261
Mercury	83346-10-20 12:58 G	32162853.88	32162854.04	32162854.21	0.1896	0.0054
Earth	83347-03-12 16:48 G	32162997.04	32162997.20	32162997.36	0.1688	0.0861
Moon	83347-03-12 20:10 G	32162997.18	32162997.34	32162997.51	0.1687	0.0884 *
Mercury	83355-05-02 09:36 G	32165969.78	32165969.90	32165970.02	0.1633	0.0152
Mercury	83356-03-11 07:56 G	32166283.70	32166283.83	32166283.96	0.1902	0.1159
Mercury	83357-04-06 14:10 G	32166675.06	32166675.09	32166675.12	0.1650	0.1588
Venus	83361-12-16 00:15 G	32168389.38	32168389.51	32168389.63	0.1843	0.1240

Mercury	83364-09-21 20:53 G	32169400.25	32169400.37	32169400.48	0.1630	0.0552
Mercury	83366-08-28 00:44 G	32170105.45	32170105.53	32170105.62	0.1645	0.1152
Mercury	83374-02-12 07:56 G	32172830.74	32172830.83	32172830.93	0.1626	0.0944
Mercury	83376-01-18 11:46 G	32173535.88	32173535.99	32173536.09	0.1641	0.0728
Mercury	83376-11-28 18:44 G	32173851.17	32173851.28	32173851.40	0.1890	0.1316
Mercury	83383-07-05 19:27 G	32176261.24	32176261.31	32176261.37	0.1623	0.1328
Mercury	83385-06-09 22:34 G	32176966.32	32176966.44	32176966.56	0.1637	0.0306
Mercury	83386-04-20 14:10 G	32177280.93	32177281.09	32177281.25	0.1896	0.0154
Venus	83389-05-04 01:27 G	32178390.39	32178390.56	32178390.74	0.1692	0.0282
Mercury	83394-10-31 09:36 G	32180396.78	32180396.90	32180397.02	0.1633	0.0105
Mercury	83395-09-10 08:24 G	32180710.71	32180710.85	32180710.98	0.1902	0.1081
Mercury	83396-10-05 14:10 G	32181102.08	32181102.09	32181102.10	0.1650	0.1634
Mercury	83404-03-23 20:39 G	32183827.25	32183827.36	32183827.47	0.1629	0.0510
Mercury	83406-02-27 00:44 G	32184532.45	32184532.53	32184532.62	0.1645	0.1196
Mercury	83413-08-14 07:56 G	32187257.73	32187257.83	32187257.93	0.1626	0.0901
Mercury	83415-07-20 11:32 G	32187962.88	32187962.98	32187963.09	0.1641	0.0765
Mercury	83416-05-30 19:41 G	32188278.22	32188278.32	32188278.43	0.1890	0.1409
Mercury	83423-01-04 19:12 G	32190688.24	32190688.30	32190688.37	0.1623	0.1287
Mercury	83424-12-09 22:34 G	32191393.32	32191393.44	32191393.56	0.1637	0.0349
Mercury	83425-10-20 14:53 G	32191707.96	32191708.12	32191708.28	0.1896	0.0246
Earth	83426-03-15 22:34 G	32191854.34	32191854.44	32191854.53	0.1683	0.1447
Moon	83426-03-16 05:32 G	32191854.67	32191854.73	32191854.79	0.1683	0.1583
Venus	83427-10-14 06:44 G	32192431.72	32192431.78	32192431.83	0.1847	0.1725
Mercury	83434-05-02 09:36 G	32194823.78	32194823.90	32194824.02	0.1633	0.0062
Mercury	83435-03-12 09:22 G	32195137.75	32195137.89	32195138.03	0.1902	0.0978
Mercury	83443-09-22 20:39 G	32198254.25	32198254.36	32198254.48	0.1630	0.0465
Mercury	83445-08-28 00:58 G	32198959.46	32198959.54	32198959.61	0.1645	0.1240
Mercury	83453-02-12 07:56 G	32201684.73	32201684.83	32201684.93	0.1626	0.0859
Mercury	83455-01-18 11:32 G	32202389.88	32202389.98	32202390.09	0.1641	0.0811
Venus	83455-03-02 11:03 G	32202432.80	32202432.96	32202433.13	0.1688	0.0553

Mercury	83455-11-29 20:24 G	32202705.25	32202705.35	32202705.45	0.1890	0.1491
Venus	83459-10-13 18:58 G	32204119.19	32204119.29	32204119.40	0.1834	0.1471
Mercury	83462-07-05 19:12 G	32205115.23	32205115.30	32205115.37	0.1623	0.1247
Mercury	83464-06-09 22:34 G	32205820.32	32205820.44	32205820.55	0.1637	0.0390
Mercury	83465-04-20 15:22 G	32206134.98	32206135.14	32206135.30	0.1896	0.0327
Mercury	83473-10-31 09:36 G	32209250.78	32209250.90	32209251.01	0.1633	0.0061
Mercury	83474-09-10 10:20 G	32209564.78	32209564.93	32209565.07	0.1902	0.0875
Mercury	83483-03-23 20:39 G	32212681.25	32212681.36	32212681.48	0.1630	0.0422
Mercury	83485-02-26 00:44 G	32213386.46	32213386.53	32213386.61	0.1645	0.1279
Mercury	83492-08-13 07:56 G	32216111.73	32216111.83	32216111.93	0.1626	0.0816
Mercury	83494-07-19 11:32 G	32216816.88	32216816.98	32216817.09	0.1641	0.0856
Mercury	83495-05-30 21:08 G	32217132.30	32217132.38	32217132.47	0.1890	0.1582
Earth	83498-09-15 05:17 G	32218335.53	32218335.72	32218335.91	0.1841	0.0512
Moon	83498-09-15 05:46 G	32218335.54	32218335.74	32218335.94	0.1841	0.0718 *
Mercury	83502-01-04 19:12 G	32219542.22	32219542.30	32219542.38	0.1623	0.1201
Mercury	83503-12-10 22:34 G	32220247.32	32220247.44	32220247.55	0.1637	0.0434
Mercury	83504-10-20 16:20 G	32220562.02	32220562.18	32220562.34	0.1896	0.0425
Mercury	83511-05-28 06:44 G	32222972.75	32222972.78	32222972.80	0.1620	0.1581
Mercury	83513-05-02 09:36 G	32223677.78	32223677.90	32223678.02	0.1633	0.0028
Mercury	83514-03-12 10:48 G	32223991.80	32223991.95	32223992.10	0.1902	0.0792
Venus	83520-12-28 20:53 G	32226475.22	32226475.37	32226475.53	0.1685	0.0827
Mercury	83522-09-22 20:39 G	32227108.24	32227108.36	32227108.47	0.1629	0.0382
Mercury	83524-08-28 00:58 G	32227813.47	32227813.54	32227813.61	0.1645	0.1325
Venus	83525-08-11 01:12 G	32228161.40	32228161.55	32228161.69	0.1838	0.0985
Mercury	83532-02-13 07:56 G	32230538.72	32230538.83	32230538.93	0.1626	0.0776
Mercury	83534-01-18 11:32 G	32231243.88	32231243.98	32231244.08	0.1641	0.0891
Mercury	83534-11-29 21:51 G	32231559.34	32231559.41	32231559.49	0.1890	0.1668
Mercury	83541-07-05 19:12 G	32233969.22	32233969.30	32233969.38	0.1623	0.1159
Mercury	83543-06-10 22:34 G	32234674.33	32234674.44	32234674.55	0.1637	0.0478
Mercury	83544-04-20 17:17 G	32234989.06	32234989.22	32234989.37	0.1896	0.0522

Mercury	83550-11-26 06:29 G	32237399.74	32237399.77	32237399.81	0.1620	0.1538
Mercury	83552-10-31 09:36 G	32238104.78	32238104.90	32238105.02	0.1633	0.0078
Venus	83552-12-27 22:34 G	32238162.37	32238162.44	32238162.52	0.1695	0.1513
Mercury	83553-09-10 11:46 G	32238418.83	32238418.99	32238419.14	0.1902	0.0698
Mercury	83562-03-23 20:39 G	32241535.24	32241535.36	32241535.47	0.1629	0.0338
Mercury	83564-02-27 00:44 G	32242240.47	32242240.53	32242240.60	0.1645	0.1366
Mercury	83571-08-14 07:56 G	32244965.72	32244965.83	32244965.93	0.1626	0.0732
Mercury	83573-07-19 11:32 G	32245670.89	32245670.98	32245671.08	0.1641	0.0940
Mercury	83574-05-30 22:34 G	32245986.39	32245986.44	32245986.50	0.1890	0.1755
Mercury	83581-01-03 19:12 G	32248396.21	32248396.30	32248396.38	0.1622	0.1122
Mercury	83582-12-09 22:34 G	32249101.32	32249101.44	32249101.55	0.1637	0.0518
Mercury	83583-10-20 17:46 G	32249416.08	32249416.24	32249416.39	0.1896	0.0594
Venus	83586-10-26 07:12 G	32250517.66	32250517.80	32250517.93	0.1682	0.1077
Mercury	83590-05-27 06:29 G	32251826.73	32251826.77	32251826.82	0.1620	0.1495
Venus	83591-06-08 07:41 G	32252203.66	32252203.82	32252203.99	0.1842	0.0505
Mercury	83592-05-01 09:22 G	32252531.78	32252531.89	32252532.01	0.1633	0.0115
Mercury	83593-03-11 12:44 G	32252845.88	32252846.03	32252846.19	0.1902	0.0587
Mercury	83601-09-21 20:39 G	32255962.24	32255962.36	32255962.47	0.1630	0.0295
Mercury	83602-08-01 06:15 G	32256275.73	32256275.76	32256275.80	0.1907	0.1857
Mercury	83603-08-28 00:44 G	32256667.47	32256667.53	32256667.59	0.1645	0.1408
Mercury	83611-02-12 07:56 G	32259392.72	32259392.83	32259392.93	0.1626	0.0692
Mercury	83613-01-17 11:32 G	32260097.89	32260097.98	32260098.08	0.1641	0.0981
Mercury	83613-11-28 23:17 G	32260413.44	32260413.47	32260413.51	0.1890	0.1836
Venus	83618-10-25 08:10 G	32262204.72	32262204.84	32262204.96	0.1692	0.1227
Mercury	83620-07-04 19:12 G	32262823.21	32262823.30	32262823.38	0.1623	0.1075
Mercury	83622-06-09 22:34 G	32263528.33	32263528.44	32263528.55	0.1637	0.0562
Mercury	83623-04-20 18:44 G	32263843.13	32263843.28	32263843.43	0.1896	0.0699
Mercury	83629-11-25 06:29 G	32266253.72	32266253.77	32266253.82	0.1619	0.1455
Moon	83631-03-15 10:34 G	32266728.75	32266728.94	32266729.12	0.1694	0.0259
Earth	83631-03-15 17:17 G	32266729.03	32266729.22	32266729.40	0.1694	0.0167 *

Mercury	83631-10-31 09:22 G	32266958.78	32266958.89	32266959.01	0.1633	0.0163
Mercury	83632-09-09 13:12 G	32267272.89	32267273.05	32267273.20	0.1902	0.0516
Mercury	83641-03-22 20:39 G	32270389.24	32270389.36	32270389.47	0.1629	0.0263
Mercury	83642-01-30 07:12 G	32270702.74	32270702.80	32270702.86	0.1908	0.1764
Mercury	83643-02-26 00:44 G	32271094.48	32271094.53	32271094.59	0.1645	0.1451
Mercury	83650-08-13 07:41 G	32273819.72	32273819.82	32273819.93	0.1626	0.0650
Mercury	83652-07-18 11:32 G	32274524.89	32274524.98	32274525.07	0.1641	0.1019
Venus	83652-08-22 17:03 G	32274560.10	32274560.21	32274560.31	0.1678	0.1338
Venus	83657-04-04 13:27 G	32276245.89	32276246.06	32276246.24	0.1846	0.0044
Mercury	83660-01-03 19:12 G	32277250.21	32277250.30	32277250.39	0.1623	0.1035
Mercury	83661-12-08 22:34 G	32277955.33	32277955.44	32277955.55	0.1637	0.0605
Mercury	83662-10-19 19:27 G	32278270.16	32278270.31	32278270.46	0.1896	0.0786
Mercury	83669-05-26 06:29 G	32280680.71	32280680.77	32280680.82	0.1619	0.1412
Mercury	83671-05-01 09:22 G	32281385.78	32281385.89	32281386.01	0.1633	0.0201
Mercury	83672-03-10 14:10 G	32281699.93	32281700.09	32281700.25	0.1902	0.0412
Mercury	83680-09-20 20:39 G	32284816.24	32284816.36	32284816.47	0.1629	0.0216
Mercury	83681-07-31 07:56 G	32285129.75	32285129.83	32285129.91	0.1907	0.1663
Mercury	83682-08-27 00:44 G	32285521.49	32285521.53	32285521.58	0.1645	0.1494
Venus	83684-08-21 18:15 G	32286247.11	32286247.26	32286247.40	0.1689	0.0955
Mercury	83690-02-11 07:41 G	32288246.71	32288246.82	32288246.93	0.1626	0.0609
Mercury	83692-01-17 11:32 G	32288951.89	32288951.98	32288952.07	0.1641	0.1064
Mercury	83699-07-04 18:58 G	32291677.20	32291677.29	32291677.38	0.1622	0.0995
Mercury	83701-06-09 22:34 G	32292382.33	32292382.44	32292382.55	0.1637	0.0645
Mercury	83702-04-20 20:10 G	32292697.19	32292697.34	32292697.48	0.1896	0.0866
Mercury	83708-11-25 06:29 G	32295107.71	32295107.77	32295107.83	0.1620	0.1370
Mercury	83710-10-31 09:22 G	32295812.77	32295812.89	32295813.01	0.1633	0.0231
Mercury	83711-09-10 15:08 G	32296126.97	32296127.13	32296127.29	0.1902	0.0312
Venus	83718-06-21 03:36 G	32298602.59	32298602.65	32298602.70	0.1675	0.1577
Mercury	83720-03-22 20:39 G	32299243.24	32299243.36	32299243.47	0.1629	0.0178
Mercury	83721-01-30 08:39 G	32299556.77	32299556.86	32299556.96	0.1907	0.1569

Mercury	83722-02-26 00:44 G	32299948.49	32299948.53	32299948.57	0.1645	0.1533
Venus	83723-01-31 19:41 G	32300288.16	32300288.32	32300288.49	0.1850	0.0493
Mercury	83729-08-13 07:41 G	32302673.71	32302673.82	32302673.93	0.1626	0.0565
Mercury	83731-07-19 11:32 G	32303378.90	32303378.98	32303379.07	0.1641	0.1108
Mercury	83739-01-03 18:58 G	32306104.20	32306104.29	32306104.39	0.1622	0.0951
Mercury	83740-12-08 22:34 G	32306809.33	32306809.44	32306809.54	0.1637	0.0689
Mercury	83741-10-19 21:08 G	32307124.24	32307124.38	32307124.51	0.1896	0.0962
Mercury	83748-05-26 06:29 G	32309534.70	32309534.77	32309534.83	0.1619	0.1331
Mercury	83750-05-01 09:22 G	32310239.78	32310239.89	32310240.01	0.1633	0.0278
Venus	83750-06-20 04:05 G	32310289.51	32310289.67	32310289.83	0.1685	0.0680
Mercury	83751-03-11 15:36 G	32310553.99	32310554.15	32310554.31	0.1902	0.0234
Mercury	83759-09-21 20:24 G	32313670.24	32313670.35	32313670.47	0.1629	0.0138
Mercury	83760-07-31 09:36 G	32313983.80	32313983.90	32313984.00	0.1908	0.1477
Mercury	83761-08-27 00:44 G	32314375.50	32314375.53	32314375.57	0.1645	0.1577
Mercury	83769-02-11 07:41 G	32317100.71	32317100.82	32317100.93	0.1626	0.0523
Mercury	83771-01-17 11:32 G	32317805.89	32317805.98	32317806.06	0.1641	0.1144
Mercury	83778-07-04 18:58 G	32320531.20	32320531.29	32320531.39	0.1623	0.0909
Mercury	83780-06-08 22:34 G	32321236.33	32321236.44	32321236.54	0.1637	0.0731
Mercury	83781-04-19 21:51 G	32321551.28	32321551.41	32321551.54	0.1896	0.1054
Moon	83782-09-16 12:58 G	32322065.94	32322066.04	32322066.14	0.1832	0.1545
Earth	83782-09-16 20:24 G	32322066.21	32322066.35	32322066.50	0.1832	0.1213
Mercury	83787-11-25 06:15 G	32323961.70	32323961.76	32323961.83	0.1619	0.1290
Venus	83788-11-28 01:12 G	32324330.41	32324330.55	32324330.70	0.1855	0.1015
Mercury	83789-10-30 09:22 G	32324666.78	32324666.89	32324667.01	0.1633	0.0318
Mercury	83790-09-09 16:20 G	32324981.02	32324981.18	32324981.35	0.1902	0.0149
Mercury	83799-03-22 20:24 G	32328097.23	32328097.35	32328097.47	0.1629	0.0095
Mercury	83800-01-30 10:20 G	32328410.82	32328410.93	32328411.05	0.1907	0.1378
Mercury	83801-02-26 00:44 G	32328802.52	32328802.53	32328802.55	0.1645	0.1618
Mercury	83808-08-13 07:41 G	32331527.71	32331527.82	32331527.93	0.1626	0.0482
Mercury	83810-07-19 11:32 G	32332232.90	32332232.98	32332233.06	0.1641	0.1190

Venus	83816-04-17 13:56 G	32334331.91	32334332.08	32334332.25	0.1682	0.0405
Mercury	83818-01-03 18:58 G	32334958.19	32334958.29	32334958.39	0.1622	0.0872
Mercury	83819-12-09 22:20 G	32335663.33	32335663.43	32335663.54	0.1637	0.0770
Mercury	83820-10-19 22:20 G	32335978.30	32335978.43	32335978.56	0.1896	0.1127
Mercury	83827-05-27 06:15 G	32338388.69	32338388.76	32338388.84	0.1619	0.1248
Mercury	83829-05-01 09:22 G	32339093.77	32339093.89	32339094.00	0.1633	0.0357
Mercury	83830-03-11 17:32 G	32339408.07	32339408.23	32339408.39	0.1902	0.0034
Mercury	83838-09-21 20:24 G	32342524.24	32342524.35	32342524.47	0.1629	0.0071
Mercury	83839-08-01 11:17 G	32342837.85	32342837.97	32342838.09	0.1907	0.1285
Mercury	83848-02-12 07:41 G	32345954.71	32345954.82	32345954.93	0.1626	0.0441
Mercury	83850-01-17 11:32 G	32346659.90	32346659.98	32346660.06	0.1641	0.1231
Venus	83854-09-26 07:12 G	32348372.71	32348372.80	32348372.90	0.1859	0.1522
Mercury	83857-07-04 18:58 G	32349385.19	32349385.29	32349385.39	0.1622	0.0826
Mercury	83859-06-09 22:20 G	32350090.33	32350090.43	32350090.54	0.1637	0.0813
Mercury	83860-04-19 23:17 G	32350405.35	32350405.47	32350405.59	0.1896	0.1225
Mercury	83866-11-25 06:15 G	32352815.68	32352815.76	32352815.84	0.1619	0.1208
Mercury	83868-10-30 09:22 G	32353520.78	32353520.89	32353521.01	0.1633	0.0399
Mercury	83869-09-09 17:46 G	32353835.08	32353835.24	32353835.41	0.1902	0.0047
Mercury	83876-04-16 17:46 G	32356246.22	32356246.24	32356246.26	0.1616	0.1579
Mercury	83878-03-22 20:24 G	32356951.23	32356951.35	32356951.47	0.1629	0.0008
Mercury	83879-01-30 12:00 G	32357264.88	32357265.00	32357265.13	0.1908	0.1192
Venus	83882-02-12 23:46 G	32358374.32	32358374.49	32358374.67	0.1679	0.0147
Venus	83886-09-25 20:53 G	32360060.32	32360060.37	32360060.42	0.1846	0.1757
Mercury	83887-08-13 07:41 G	32360381.70	32360381.82	32360381.93	0.1626	0.0399
Mercury	83889-07-18 11:32 G	32361086.90	32361086.98	32361087.05	0.1641	0.1268
Mercury	83897-01-02 18:58 G	32363812.18	32363812.29	32363812.39	0.1622	0.0787
Mercury	83898-12-08 22:20 G	32364517.33	32364517.43	32364517.54	0.1637	0.0855
Mercury	83899-10-20 00:00 G	32364832.38	32364832.50	32364832.62	0.1896	0.1309
Mercury	83906-05-27 06:15 G	32367242.68	32367242.76	32367242.84	0.1619	0.1165
Mercury	83908-05-01 09:22 G	32367947.78	32367947.89	32367948.00	0.1633	0.0441

Mercury	83909-03-11 18:44 G	32368262.12	32368262.28	32368262.45	0.1902	0.0147
Earth	83915-03-19 16:34 G	32370461.02	32370461.19	32370461.37	0.1700	0.0506
Moon	83915-03-19 18:15 G	32370461.10	32370461.26	32370461.43	0.1700	0.0605 *
Mercury	83915-10-17 17:46 G	32370673.21	32370673.24	32370673.27	0.1616	0.1538
Mercury	83917-09-21 20:24 G	32371378.23	32371378.35	32371378.47	0.1629	0.0042
Mercury	83918-08-01 12:58 G	32371691.90	32371692.04	32371692.17	0.1907	0.1099
Mercury	83927-02-12 07:41 G	32374808.70	32374808.82	32374808.93	0.1625	0.0363
Mercury	83929-01-17 11:32 G	32375513.91	32375513.98	32375514.05	0.1641	0.1313
Mercury	83936-07-04 18:44 G	32378239.18	32378239.28	32378239.39	0.1622	0.0750
Mercury	83938-06-09 22:20 G	32378944.33	32378944.43	32378944.53	0.1637	0.0893
Mercury	83939-04-21 00:44 G	32379259.42	32379259.53	32379259.64	0.1896	0.1388
Mercury	83945-11-25 06:15 G	32381669.68	32381669.76	32381669.84	0.1619	0.1124
Mercury	83947-10-31 09:22 G	32382374.77	32382374.89	32382375.00	0.1633	0.0482
Venus	83947-12-12 10:05 G	32382416.74	32382416.92	32382417.09	0.1676	0.0128
Mercury	83948-09-09 19:41 G	32382689.16	32382689.32	32382689.49	0.1902	0.0235
Venus	83952-07-24 02:39 G	32384102.48	32384102.61	32384102.73	0.1850	0.1247
Mercury	83955-04-17 17:46 G	32385100.20	32385100.24	32385100.28	0.1616	0.1497
Mercury	83957-03-22 20:24 G	32385805.23	32385805.35	32385805.47	0.1629	0.0078
Mercury	83958-01-30 13:41 G	32386118.93	32386119.07	32386119.21	0.1908	0.1007
Mercury	83966-08-13 07:41 G	32389235.70	32389235.82	32389235.93	0.1626	0.0321
Mercury	83968-07-18 11:32 G	32389940.92	32389940.98	32389941.05	0.1641	0.1355
Mercury	83976-01-03 18:44 G	32392666.18	32392666.28	32392666.39	0.1622	0.0708
Mercury	83977-12-08 22:20 G	32393371.33	32393371.43	32393371.53	0.1637	0.0934
Mercury	83978-10-20 01:27 G	32393686.46	32393686.56	32393686.66	0.1896	0.1478
Mercury	83985-05-26 06:15 G	32396096.67	32396096.76	32396096.84	0.1619	0.1086
Mercury	83987-05-01 09:22 G	32396801.78	32396801.89	32396802.00	0.1633	0.0522
Mercury	83988-03-10 20:10 G	32397116.18	32397116.34	32397116.50	0.1902	0.0305
Mercury	83994-10-16 17:32 G	32399527.19	32399527.23	32399527.28	0.1616	0.1459
Mercury	83996-09-20 20:24 G	32400232.23	32400232.35	32400232.47	0.1629	0.0121
Mercury	83997-07-31 14:24 G	32400545.96	32400546.10	32400546.25	0.1908	0.0914

85TH MILLENNIUM CE

This is a list of transits visible from Mars in the 85th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	84006-02-11 07:27	G	32403662.70	32403662.81	32403662.93	0.1626	0.0283	
Mercury	84008-01-17 11:32	G	32404367.92	32404367.98	32404368.04	0.1641	0.1391	
Venus	84013-10-08 20:10	G	32406459.17	32406459.34	32406459.51	0.1673	0.0366	
Mercury	84015-07-04 18:44	G	32407093.18	32407093.28	32407093.39	0.1622	0.0665	
Mercury	84017-06-08 22:20	G	32407798.34	32407798.43	32407798.53	0.1637	0.0977	
Mercury	84018-04-20 02:24	G	32408113.51	32408113.60	32408113.68	0.1896	0.1567	
Venus	84018-05-21 08:39	G	32408144.70	32408144.86	32408145.02	0.1854	0.0744	
Mercury	84024-11-24 06:15	G	32410523.67	32410523.76	32410523.85	0.1619	0.1045	
Mercury	84026-10-30 09:22	G	32411228.77	32411228.89	32411229.00	0.1633	0.0565	
Mercury	84027-09-09 21:08	G	32411543.22	32411543.38	32411543.54	0.1902	0.0398	
Mercury	84034-04-16 17:32	G	32413954.18	32413954.23	32413954.29	0.1616	0.1418	
Mercury	84036-03-21 20:24	G	32414659.23	32414659.35	32414659.47	0.1629	0.0161	
Mercury	84037-01-29 15:08	G	32414972.99	32414973.13	32414973.28	0.1907	0.0823	
Mercury	84045-08-12 07:27	G	32418089.70	32418089.81	32418089.93	0.1625	0.0242	
Mercury	84047-07-18 11:32	G	32418794.93	32418794.98	32418795.04	0.1641	0.1436	
Mercury	84055-01-02 18:44	G	32421520.17	32421520.28	32421520.39	0.1622	0.0627	
Mercury	84056-12-07 22:20	G	32422225.34	32422225.43	32422225.52	0.1636	0.1012	
Mercury	84057-10-19 02:53	G	32422540.54	32422540.62	32422540.70	0.1896	0.1638	
Mercury	84064-05-25 06:15	G	32424950.67	32424950.76	32424950.85	0.1619	0.1004	

Mercury	84066-04-30 09:08 G	32425655.77	32425655.88	32425655.99	0.1633	0.0604
Earth	84066-09-18 13:12 G	32425797.02	32425797.05	32425797.08	0.1823	0.1795
Moon	84066-09-18 21:22 G	32425797.27	32425797.39	32425797.51	0.1823	0.1433
Mercury	84067-03-10 22:05 G	32425970.26	32425970.42	32425970.58	0.1902	0.0499
Mercury	84073-10-15 17:32 G	32428381.17	32428381.23	32428381.29	0.1616	0.1377
Mercury	84075-09-20 20:24 G	32429086.23	32429086.35	32429086.47	0.1629	0.0201
Mercury	84076-07-30 16:05 G	32429400.01	32429400.17	32429400.32	0.1908	0.0733
Venus	84079-08-06 06:15 G	32430501.60	32430501.76	32430501.93	0.1669	0.0620
Venus	84084-03-17 13:56 G	32432186.91	32432187.08	32432187.25	0.1858	0.0219
Mercury	84085-02-10 07:27 G	32432516.69	32432516.81	32432516.93	0.1625	0.0198
Mercury	84087-01-16 11:32 G	32433221.93	32433221.98	32433222.03	0.1641	0.1476
Mercury	84094-07-03 18:44 G	32435947.17	32435947.28	32435947.39	0.1622	0.0583
Mercury	84096-06-07 22:20 G	32436652.34	32436652.43	32436652.52	0.1637	0.1056
Mercury	84097-04-19 03:51 G	32436967.59	32436967.66	32436967.72	0.1896	0.1733
Mercury	84103-11-25 06:00 G	32439377.66	32439377.75	32439377.85	0.1619	0.0967
Mercury	84105-10-30 09:22 G	32440082.78	32440082.89	32440082.99	0.1633	0.0646
Mercury	84106-09-09 22:20 G	32440397.28	32440397.43	32440397.59	0.1902	0.0564
Venus	84111-08-06 06:29 G	32442188.73	32442188.77	32442188.82	0.1679	0.1622
Mercury	84113-04-16 17:32 G	32442808.17	32442808.23	32442808.29	0.1616	0.1338
Mercury	84115-03-22 20:10 G	32443513.23	32443513.34	32443513.46	0.1629	0.0241
Mercury	84116-01-30 16:48 G	32443827.05	32443827.20	32443827.36	0.1908	0.0640
Moon	84120-03-18 03:36 G	32445335.56	32445335.65	32445335.74	0.1711	0.1513
Earth	84120-03-18 06:15 G	32445335.65	32445335.76	32445335.87	0.1711	0.1381 *
Mercury	84124-08-12 07:27 G	32446943.69	32446943.81	32446943.93	0.1626	0.0156
Mercury	84125-06-21 10:34 G	32447256.92	32447256.94	32447256.96	0.1912	0.1894
Mercury	84126-07-18 11:32 G	32447648.93	32447648.98	32447649.02	0.1641	0.1513
Mercury	84134-01-02 18:44 G	32450374.17	32450374.28	32450374.39	0.1622	0.0544
Mercury	84135-12-08 22:20 G	32451079.34	32451079.43	32451079.52	0.1637	0.1097
Mercury	84136-10-19 04:20 G	32451394.64	32451394.68	32451394.73	0.1896	0.1811
Mercury	84143-05-26 06:00 G	32453804.66	32453804.75	32453804.85	0.1619	0.0924

Mercury	84145-04-30 09:08 G	32454509.78	32454509.88	32454509.99	0.1633	0.0685
Venus	84145-06-03 17:03 G	32454544.06	32454544.21	32454544.36	0.1667	0.0852
Mercury	84146-03-10 23:17 G	32454824.32	32454824.47	32454824.63	0.1902	0.0664
Venus	84150-01-13 19:41 G	32456229.15	32456229.32	32456229.49	0.1862	0.0309
Mercury	84152-10-15 17:32 G	32457235.16	32457235.23	32457235.30	0.1616	0.1298
Mercury	84154-09-20 20:24 G	32457940.23	32457940.35	32457940.46	0.1629	0.0285
Mercury	84155-07-31 17:32 G	32458254.07	32458254.23	32458254.39	0.1907	0.0552
Mercury	84164-02-11 07:27 G	32461370.69	32461370.81	32461370.93	0.1625	0.0120
Mercury	84164-12-20 11:03 G	32461683.91	32461683.96	32461684.00	0.1913	0.1820
Mercury	84166-01-16 11:32 G	32462075.95	32462075.98	32462076.01	0.1641	0.1556
Mercury	84173-07-03 18:44 G	32464801.16	32464801.28	32464801.39	0.1622	0.0510
Mercury	84175-06-08 22:20 G	32465506.34	32465506.43	32465506.51	0.1636	0.1133
Mercury	84176-04-19 05:03 G	32465821.70	32465821.71	32465821.72	0.1896	0.1891
Venus	84177-06-02 16:34 G	32466231.09	32466231.19	32466231.30	0.1676	0.1356
Mercury	84182-11-24 06:00 G	32468231.65	32468231.75	32468231.85	0.1619	0.0884
Mercury	84184-10-29 09:08 G	32468936.78	32468936.88	32468936.99	0.1633	0.0723
Mercury	84185-09-09 00:15 G	32469251.36	32469251.51	32469251.66	0.1902	0.0754
Mercury	84192-04-15 17:32 G	32471662.15	32471662.23	32471662.30	0.1616	0.1259
Mercury	84194-03-21 20:10 G	32472367.23	32472367.34	32472367.46	0.1629	0.0325
Mercury	84195-01-29 18:15 G	32472681.10	32472681.26	32472681.42	0.1908	0.0464
Earth	84199-03-21 14:39 G	32474192.97	32474193.11	32474193.25	0.1706	0.1125
Moon	84199-03-21 20:53 G	32474193.25	32474193.37	32474193.49	0.1706	0.1325 *
Mercury	84203-08-13 07:27 G	32475797.69	32475797.81	32475797.93	0.1625	0.0078
Mercury	84204-06-21 12:00 G	32476110.93	32476111.00	32476111.07	0.1913	0.1713
Mercury	84205-07-18 11:32 G	32476502.96	32476502.98	32476503.00	0.1641	0.1596
Venus	84211-04-02 03:08 G	32478586.50	32478586.63	32478586.76	0.1663	0.1096
Mercury	84213-01-02 18:44 G	32479228.16	32479228.28	32479228.39	0.1622	0.0467
Mercury	84214-12-08 22:20 G	32479933.35	32479933.43	32479933.51	0.1636	0.1175
Venus	84215-11-12 00:44 G	32480271.38	32480271.53	32480271.69	0.1866	0.0857
Mercury	84222-05-26 06:00 G	32482658.65	32482658.75	32482658.85	0.1619	0.0847

Mercury	84224-04-30 09:08 G	32483363.78	32483363.88	32483363.99	0.1633	0.0763
Mercury	84225-03-11 00:44 G	32483678.38	32483678.53	32483678.67	0.1902	0.0824
Mercury	84231-10-16 17:17 G	32486089.15	32486089.22	32486089.30	0.1616	0.1219
Mercury	84233-09-20 20:10 G	32486794.23	32486794.34	32486794.46	0.1629	0.0357
Mercury	84234-07-31 19:12 G	32487108.14	32487108.30	32487108.46	0.1908	0.0369
Mercury	84241-03-08 04:48 G	32489519.68	32489519.70	32489519.72	0.1613	0.1585
Mercury	84243-02-11 07:27 G	32490224.69	32490224.81	32490224.92	0.1625	0.0064
Venus	84243-04-01 02:39 G	32490273.48	32490273.61	32490273.74	0.1673	0.1090
Mercury	84243-12-21 12:44 G	32490537.95	32490538.03	32490538.12	0.1913	0.1621
Mercury	84245-01-16 11:32 G	32490929.97	32490929.98	32490929.98	0.1640	0.1632
Mercury	84252-07-03 18:44 G	32493655.16	32493655.28	32493655.39	0.1622	0.0429
Mercury	84254-06-08 22:20 G	32494360.35	32494360.43	32494360.51	0.1637	0.1216
Mercury	84261-11-24 06:00 G	32497085.65	32497085.75	32497085.85	0.1619	0.0805
Mercury	84263-10-30 09:08 G	32497790.78	32497790.88	32497790.99	0.1633	0.0803
Mercury	84264-09-09 01:27 G	32498105.42	32498105.56	32498105.71	0.1902	0.0916
Mercury	84271-04-16 17:17 G	32500516.14	32500516.22	32500516.30	0.1616	0.1180
Mercury	84273-03-21 20:10 G	32501221.23	32501221.34	32501221.46	0.1629	0.0399
Mercury	84274-01-29 19:56 G	32501535.17	32501535.33	32501535.49	0.1908	0.0289
Venus	84277-01-27 14:10 G	32502628.98	32502629.09	32502629.19	0.1661	0.1323
Mercury	84280-09-06 04:48 G	32503946.67	32503946.70	32503946.73	0.1613	0.1548
Venus	84281-09-08 06:15 G	32504313.64	32504313.76	32504313.87	0.1870	0.1394
Mercury	84282-08-12 07:27 G	32504651.69	32504651.81	32504651.92	0.1625	0.0062
Mercury	84283-06-21 13:27 G	32504964.96	32504965.06	32504965.16	0.1913	0.1539
Mercury	84292-01-02 18:29 G	32508082.16	32508082.27	32508082.39	0.1622	0.0388
Mercury	84293-12-07 22:20 G	32508787.35	32508787.43	32508787.50	0.1636	0.1253
Mercury	84301-05-26 06:00 G	32511512.64	32511512.75	32511512.85	0.1619	0.0765
Mercury	84303-05-01 09:08 G	32512217.78	32512217.88	32512217.98	0.1633	0.0842
Mercury	84304-03-11 02:24 G	32512532.47	32512532.60	32512532.74	0.1902	0.1013
Venus	84309-01-27 12:58 G	32514315.89	32514316.04	32514316.19	0.1670	0.0840
Mercury	84310-10-16 17:17 G	32514943.14	32514943.22	32514943.30	0.1616	0.1140

Mercury	84312-09-20 20:10 G	32515648.23	32515648.34	32515648.46	0.1629	0.0440
Mercury	84313-07-31 20:39 G	32515962.20	32515962.36	32515962.52	0.1908	0.0196
Mercury	84320-03-08 04:48 G	32518373.66	32518373.70	32518373.74	0.1613	0.1506
Mercury	84322-02-11 07:12 G	32519078.68	32519078.80	32519078.92	0.1625	0.0055
Mercury	84322-12-21 14:24 G	32519391.99	32519392.10	32519392.20	0.1913	0.1443
Mercury	84331-07-04 18:29 G	32522509.16	32522509.27	32522509.39	0.1622	0.0348
Mercury	84333-06-08 22:20 G	32523214.36	32523214.43	32523214.50	0.1636	0.1295
Mercury	84340-11-24 05:46 G	32525939.64	32525939.74	32525939.85	0.1619	0.0730
Mercury	84342-10-30 09:08 G	32526644.78	32526644.88	32526644.98	0.1632	0.0881
Venus	84342-11-26 00:44 G	32526671.47	32526671.53	32526671.59	0.1658	0.1554
Mercury	84343-09-10 02:53 G	32526959.49	32526959.62	32526959.75	0.1902	0.1074
Mercury	84350-04-16 17:17 G	32529370.13	32529370.22	32529370.30	0.1616	0.1101
Mercury	84352-03-21 20:10 G	32530075.22	32530075.34	32530075.45	0.1629	0.0475
Mercury	84353-01-29 21:36 G	32530389.23	32530389.40	32530389.56	0.1908	0.0109
Mercury	84359-09-07 04:48 G	32532800.65	32532800.70	32532800.74	0.1613	0.1467
Mercury	84361-08-12 07:12 G	32533505.68	32533505.80	32533505.92	0.1625	0.0093
Mercury	84362-06-21 15:08 G	32533819.02	32533819.13	32533819.25	0.1913	0.1345
Mercury	84371-01-02 18:29 G	32536936.15	32536936.27	32536936.39	0.1622	0.0307
Mercury	84372-12-07 22:20 G	32537641.36	32537641.43	32537641.49	0.1636	0.1335
Venus	84374-11-24 23:17 G	32538358.30	32538358.47	32538358.63	0.1667	0.0583
Venus	84379-07-07 02:24 G	32540043.49	32540043.60	32540043.71	0.1862	0.1436
Mercury	84380-05-25 05:46 G	32540366.64	32540366.74	32540366.85	0.1619	0.0688
Mercury	84382-04-30 09:08 G	32541071.78	32541071.88	32541071.98	0.1632	0.0921
Mercury	84383-03-11 03:51 G	32541386.53	32541386.66	32541386.79	0.1902	0.1169
Mercury	84389-10-15 17:17 G	32543797.13	32543797.22	32543797.30	0.1616	0.1064
Mercury	84391-09-20 20:10 G	32544502.23	32544502.34	32544502.45	0.1629	0.0518
Mercury	84392-07-30 22:05 G	32544816.26	32544816.42	32544816.59	0.1908	0.0036
Mercury	84399-03-08 04:34 G	32547227.64	32547227.69	32547227.74	0.1613	0.1432
Mercury	84401-02-10 07:12 G	32547932.68	32547932.80	32547932.92	0.1625	0.0118
Mercury	84401-12-20 15:36 G	32548246.03	32548246.15	32548246.28	0.1913	0.1272

Moon	84404-03-20 20:53 G	32549067.24	32549067.37	32549067.51	0.1718	0.1091
Earth	84404-03-21 02:39 G	32549067.44	32549067.61	32549067.77	0.1718	0.0827 *
Mercury	84410-07-03 18:29 G	32551363.15	32551363.27	32551363.38	0.1622	0.0271
Mercury	84412-06-07 22:05 G	32552068.36	32552068.42	32552068.49	0.1636	0.1371
Mercury	84419-11-24 05:46 G	32554793.63	32554793.74	32554793.85	0.1619	0.0649
Mercury	84421-10-29 09:08 G	32555498.78	32555498.88	32555498.97	0.1633	0.0960
Mercury	84422-09-09 04:34 G	32555813.57	32555813.69	32555813.81	0.1902	0.1258
Mercury	84429-04-15 17:03 G	32558224.12	32558224.21	32558224.30	0.1616	0.1025
Earth	84429-09-24 07:12 G	32558385.71	32558385.80	32558385.89	0.1819	0.1614
Moon	84429-09-24 15:36 G	32558386.05	32558386.15	32558386.25	0.1820	0.1583
Mercury	84431-03-21 20:10 G	32558929.23	32558929.34	32558929.45	0.1629	0.0556
Mercury	84432-01-29 22:48 G	32559243.29	32559243.45	32559243.62	0.1908	0.0084
Mercury	84438-09-06 04:34 G	32561654.64	32561654.69	32561654.75	0.1613	0.1390
Mercury	84440-08-11 07:12 G	32562359.68	32562359.80	32562359.92	0.1625	0.0160
Venus	84440-09-21 09:51 G	32562400.73	32562400.91	32562401.08	0.1664	0.0347
Mercury	84441-06-20 16:48 G	32562673.07	32562673.20	32562673.33	0.1913	0.1168
Venus	84445-05-03 07:41 G	32564085.68	32564085.82	32564085.97	0.1866	0.0907
Mercury	84450-01-01 18:29 G	32565790.15	32565790.27	32565790.39	0.1622	0.0230
Mercury	84451-12-07 22:05 G	32566495.37	32566495.42	32566495.48	0.1636	0.1412
Mercury	84459-05-25 05:46 G	32569220.63	32569220.74	32569220.85	0.1619	0.0613
Mercury	84461-04-29 09:08 G	32569925.79	32569925.88	32569925.97	0.1632	0.0999
Mercury	84462-03-10 05:03 G	32570240.60	32570240.71	32570240.83	0.1902	0.1326
Mercury	84468-10-14 17:03 G	32572651.12	32572651.21	32572651.30	0.1616	0.0985
Mercury	84470-09-19 19:56 G	32573356.22	32573356.33	32573356.45	0.1629	0.0594
Mercury	84471-07-30 23:46 G	32573670.33	32573670.49	32573670.66	0.1908	0.0166
Mercury	84478-03-07 04:34 G	32576081.63	32576081.69	32576081.75	0.1613	0.1352
Mercury	84480-02-10 07:12 G	32576786.68	32576786.80	32576786.92	0.1625	0.0199
Mercury	84480-12-19 17:32 G	32577100.09	32577100.23	32577100.36	0.1913	0.1082
Earth	84483-03-24 11:17 G	32577924.94	32577924.97	32577924.99	0.1713	0.1690
Mercury	84489-07-02 18:29 G	32580217.15	32580217.27	32580217.38	0.1622	0.0195

Mercury	84491-06-07 22:05 G	32580922.37	32580922.42	32580922.48	0.1636	0.1453
Mercury	84498-11-23 05:46 G	32583647.63	32583647.74	32583647.85	0.1619	0.0571
Mercury	84500-10-29 09:08 G	32584352.79	32584352.88	32584352.97	0.1632	0.1039
Mercury	84501-09-09 06:00 G	32584667.64	32584667.75	32584667.86	0.1902	0.1414
Venus	84506-07-20 19:56 G	32586443.16	32586443.33	32586443.51	0.1661	0.0105
Mercury	84508-04-15 17:03 G	32587078.12	32587078.21	32587078.30	0.1616	0.0947
Mercury	84510-03-21 20:10 G	32587783.23	32587783.34	32587783.45	0.1629	0.0636
Mercury	84511-01-30 00:29 G	32588097.35	32588097.52	32588097.68	0.1908	0.0238
Venus	84511-03-01 12:44 G	32588127.86	32588128.03	32588128.19	0.1870	0.0353
Mercury	84517-09-06 04:34 G	32590508.62	32590508.69	32590508.75	0.1613	0.1316
Mercury	84519-08-12 07:12 G	32591213.68	32591213.80	32591213.91	0.1625	0.0240
Mercury	84520-06-20 18:15 G	32591527.12	32591527.26	32591527.40	0.1913	0.0999
Mercury	84529-01-01 18:15 G	32594644.15	32594644.26	32594644.38	0.1622	0.0161
Mercury	84530-12-07 22:05 G	32595349.37	32595349.42	32595349.47	0.1636	0.1486
Mercury	84538-05-25 05:46 G	32598074.63	32598074.74	32598074.85	0.1619	0.0534
Mercury	84540-04-29 09:08 G	32598779.79	32598779.88	32598779.96	0.1632	0.1078
Mercury	84541-03-10 06:58 G	32599094.69	32599094.79	32599094.88	0.1902	0.1506
Mercury	84547-10-15 17:03 G	32601505.11	32601505.21	32601505.31	0.1616	0.0907
Mercury	84549-09-19 19:56 G	32602210.23	32602210.33	32602210.44	0.1629	0.0676
Mercury	84550-07-31 01:12 G	32602524.39	32602524.55	32602524.71	0.1908	0.0322
Mercury	84557-03-07 04:34 G	32604935.62	32604935.69	32604935.76	0.1613	0.1275
Mercury	84559-02-10 07:12 G	32605640.68	32605640.80	32605640.91	0.1625	0.0281
Mercury	84559-12-20 18:58 G	32605954.15	32605954.29	32605954.44	0.1913	0.0905
Mercury	84568-07-02 18:15 G	32609071.15	32609071.26	32609071.38	0.1622	0.0129
Mercury	84570-06-07 22:05 G	32609776.38	32609776.42	32609776.46	0.1636	0.1529
Venus	84572-05-17 06:58 G	32610485.62	32610485.79	32610485.97	0.1658	0.0130
Venus	84576-12-26 18:00 G	32612170.08	32612170.25	32612170.42	0.1874	0.0198
Mercury	84577-11-23 05:32 G	32612501.62	32612501.73	32612501.84	0.1618	0.0499
Mercury	84579-10-29 09:08 G	32613206.79	32613206.88	32613206.96	0.1632	0.1115
Mercury	84580-09-08 07:12 G	32613521.71	32613521.80	32613521.89	0.1902	0.1568

Mercury	84587-04-15 17:03 G	32615932.11	32615932.21	32615932.31	0.1616	0.0869
Mercury	84589-03-20 19:56 G	32616637.22	32616637.33	32616637.44	0.1628	0.0707
Mercury	84590-01-29 02:10 G	32616951.43	32616951.59	32616951.75	0.1908	0.0414
Mercury	84596-09-05 04:34 G	32619362.61	32619362.69	32619362.76	0.1613	0.1236
Mercury	84598-08-11 07:12 G	32620067.68	32620067.80	32620067.91	0.1625	0.0320
Mercury	84599-06-20 19:56 G	32620381.18	32620381.33	32620381.48	0.1913	0.0813
Mercury	84606-01-27 16:05 G	32622793.16	32622793.17	32622793.18	0.1610	0.1598
Mercury	84608-01-02 18:15 G	32623498.14	32623498.26	32623498.38	0.1622	0.0081
Mercury	84609-12-07 22:05 G	32624203.39	32624203.42	32624203.45	0.1636	0.1568
Mercury	84617-05-25 05:32 G	32626928.62	32626928.73	32626928.85	0.1619	0.0457
Mercury	84619-04-30 08:53 G	32627633.79	32627633.87	32627633.96	0.1632	0.1156
Mercury	84620-03-10 08:10 G	32627948.77	32627948.84	32627948.92	0.1902	0.1662
Mercury	84626-10-15 17:03 G	32630359.11	32630359.21	32630359.31	0.1616	0.0833
Mercury	84628-09-19 19:56 G	32631064.23	32631064.33	32631064.44	0.1628	0.0752
Mercury	84629-07-31 02:39 G	32631378.45	32631378.61	32631378.77	0.1908	0.0488
Mercury	84636-03-07 04:20 G	32633789.60	32633789.68	32633789.76	0.1613	0.1201
Mercury	84638-02-10 06:58 G	32634494.68	32634494.79	32634494.91	0.1625	0.0351
Venus	84638-03-15 17:17 G	32634528.05	32634528.22	32634528.39	0.1655	0.0365
Mercury	84638-12-20 20:24 G	32634808.20	32634808.35	32634808.50	0.1913	0.0736
Venus	84642-10-24 22:34 G	32636212.29	32636212.44	32636212.60	0.1878	0.0770
Mercury	84645-07-28 16:05 G	32637220.14	32637220.17	32637220.19	0.1610	0.1559
Mercury	84647-07-03 18:15 G	32637925.14	32637925.26	32637925.38	0.1622	0.0037
Mercury	84649-06-07 22:05 G	32638630.40	32638630.42	32638630.44	0.1636	0.1602
Mercury	84656-11-23 05:32 G	32641355.62	32641355.73	32641355.85	0.1619	0.0418
Mercury	84658-10-29 08:53 G	32642060.80	32642060.87	32642060.96	0.1632	0.1196
Mercury	84659-09-09 08:53 G	32642375.81	32642375.87	32642375.93	0.1902	0.1745
Mercury	84666-04-15 16:48 G	32644786.10	32644786.20	32644786.31	0.1616	0.0794
Mercury	84668-03-20 19:56 G	32645491.23	32645491.33	32645491.43	0.1628	0.0787
Mercury	84669-01-29 03:22 G	32645805.49	32645805.64	32645805.80	0.1908	0.0577
Mercury	84675-09-06 04:20 G	32648216.60	32648216.68	32648216.76	0.1613	0.1160

Mercury	84677-08-11 06:58 G	32648921.68	32648921.79	32648921.91	0.1625	0.0395
Mercury	84678-06-20 21:22 G	32649235.24	32649235.39	32649235.55	0.1913	0.0638
Mercury	84685-01-26 15:51 G	32651647.13	32651647.16	32651647.20	0.1610	0.1524
Mercury	84687-01-01 18:15 G	32652352.14	32652352.26	32652352.38	0.1622	0.0008
Mercury	84687-11-10 14:24 G	32652665.09	32652665.10	32652665.11	0.1918	0.1911
Earth	84688-03-23 21:36 G	32652799.22	32652799.40	32652799.59	0.1725	0.0310
Moon	84688-03-24 03:08 G	32652799.46	32652799.63	32652799.81	0.1725	0.0366 *
Mercury	84696-05-24 05:32 G	32655782.61	32655782.73	32655782.84	0.1618	0.0383
Mercury	84698-04-29 08:53 G	32656487.80	32656487.87	32656487.95	0.1632	0.1231
Mercury	84699-03-10 09:22 G	32656802.85	32656802.89	32656802.94	0.1902	0.1814
Venus	84704-01-12 04:34 G	32658570.52	32658570.69	32658570.85	0.1653	0.0583
Mercury	84705-10-15 16:48 G	32659213.10	32659213.20	32659213.31	0.1616	0.0754
Mercury	84707-09-20 19:56 G	32659918.23	32659918.33	32659918.43	0.1628	0.0824
Mercury	84708-07-31 04:20 G	32660232.53	32660232.68	32660232.84	0.1908	0.0672
Venus	84708-08-22 03:36 G	32660254.53	32660254.65	32660254.77	0.1882	0.1332
Moon	84713-09-26 18:58 G	32662116.09	32662116.29	32662116.49	0.1809	0.0577
Earth	84713-09-27 01:41 G	32662116.41	32662116.57	32662116.72	0.1810	0.1081 *
Mercury	84715-03-08 04:20 G	32662643.60	32662643.68	32662643.76	0.1613	0.1123
Mercury	84717-02-10 06:58 G	32663348.68	32663348.79	32663348.91	0.1625	0.0431
Mercury	84717-12-20 22:05 G	32663662.26	32663662.42	32663662.58	0.1913	0.0554
Mercury	84724-07-28 15:51 G	32666074.12	32666074.16	32666074.20	0.1610	0.1482
Mercury	84726-07-03 18:15 G	32666779.14	32666779.26	32666779.38	0.1622	0.0041
Mercury	84727-05-12 15:36 G	32667092.10	32667092.15	32667092.20	0.1918	0.1806
Mercury	84735-11-24 05:32 G	32670209.61	32670209.73	32670209.84	0.1618	0.0341
Venus	84736-01-11 02:39 G	32670257.55	32670257.61	32670257.68	0.1661	0.1538
Mercury	84737-10-29 08:53 G	32670914.80	32670914.87	32670914.95	0.1632	0.1271
Mercury	84738-09-09 10:20 G	32671229.93	32671229.93	32671229.93	0.1902	0.1900
Mercury	84745-04-15 16:48 G	32673640.10	32673640.20	32673640.31	0.1615	0.0717
Mercury	84747-03-21 19:56 G	32674345.23	32674345.33	32674345.43	0.1628	0.0864
Mercury	84748-01-30 04:48 G	32674659.55	32674659.70	32674659.85	0.1908	0.0737

Mercury	84754-09-06 04:20 G	32677070.59	32677070.68	32677070.76	0.1613	0.1086
Mercury	84756-08-11 06:58 G	32677775.68	32677775.79	32677775.90	0.1625	0.0466
Mercury	84757-06-20 22:48 G	32678089.29	32678089.45	32678089.61	0.1913	0.0471
Mercury	84764-01-27 15:51 G	32680501.11	32680501.16	32680501.21	0.1610	0.1445
Mercury	84766-01-01 18:15 G	32681206.14	32681206.26	32681206.37	0.1622	0.0090
Mercury	84766-11-10 16:34 G	32681519.11	32681519.19	32681519.26	0.1918	0.1711
Venus	84769-11-08 15:08 G	32682612.98	32682613.13	32682613.29	0.1650	0.0807
Mercury	84775-05-25 05:32 G	32684636.61	32684636.73	32684636.84	0.1618	0.0304
Mercury	84777-04-29 08:53 G	32685341.80	32685341.87	32685341.94	0.1632	0.1309
Mercury	84784-10-14 16:48 G	32688067.09	32688067.20	32688067.31	0.1615	0.0678
Mercury	84786-09-19 19:56 G	32688772.23	32688772.33	32688772.43	0.1628	0.0903
Mercury	84787-07-31 05:46 G	32689086.59	32689086.74	32689086.89	0.1908	0.0828
Mercury	84794-03-07 04:20 G	32691497.59	32691497.68	32691497.77	0.1613	0.1046
Mercury	84796-02-10 06:58 G	32692202.68	32692202.79	32692202.90	0.1625	0.0506
Mercury	84796-12-19 23:46 G	32692516.33	32692516.49	32692516.65	0.1913	0.0382
Venus	84801-11-07 12:58 G	32694299.94	32694300.04	32694300.15	0.1659	0.1290
Mercury	84803-07-28 15:51 G	32694928.10	32694928.16	32694928.21	0.1610	0.1411
Mercury	84805-07-02 18:15 G	32695633.14	32695633.26	32695633.38	0.1621	0.0121
Mercury	84806-05-11 17:03 G	32695946.12	32695946.21	32695946.29	0.1918	0.1637
Venus	84806-06-19 00:44 G	32695984.44	32695984.53	32695984.62	0.1874	0.1567
Mercury	84814-11-23 05:17 G	32699063.61	32699063.72	32699063.84	0.1618	0.0270
Mercury	84816-10-28 08:53 G	32699768.81	32699768.87	32699768.94	0.1632	0.1345
Mercury	84824-04-14 16:48 G	32702494.09	32702494.20	32702494.31	0.1615	0.0639
Mercury	84826-03-20 19:41 G	32703199.23	32703199.32	32703199.42	0.1628	0.0940
Mercury	84827-01-29 06:44 G	32703513.64	32703513.78	32703513.92	0.1908	0.0919
Mercury	84833-09-05 04:20 G	32705924.59	32705924.68	32705924.77	0.1613	0.1010
Mercury	84835-08-11 06:58 G	32706629.68	32706629.79	32706629.90	0.1625	0.0546
Venus	84835-09-06 02:24 G	32706655.46	32706655.60	32706655.73	0.1648	0.1023
Mercury	84836-06-20 00:29 G	32706943.36	32706943.52	32706943.68	0.1913	0.0290
Mercury	84843-01-26 15:36 G	32709355.10	32709355.15	32709355.21	0.1610	0.1371

Mercury	84844-12-31 18:15 G	32710060.14	32710060.26	32710060.37	0.1621	0.0166
Mercury	84845-11-09 18:00 G	32710373.15	32710373.25	32710373.34	0.1918	0.1541
Mercury	84854-05-24 05:17 G	32713490.61	32713490.72	32713490.84	0.1618	0.0234
Mercury	84856-04-28 08:53 G	32714195.81	32714195.87	32714195.93	0.1632	0.1385
Mercury	84863-10-14 16:48 G	32716921.09	32716921.20	32716921.31	0.1615	0.0605
Mercury	84865-09-18 19:56 G	32717626.23	32717626.33	32717626.42	0.1628	0.0980
Mercury	84866-07-30 07:12 G	32717940.66	32717940.80	32717940.94	0.1908	0.0988
Venus	84867-09-05 00:00 G	32718342.37	32718342.50	32718342.63	0.1656	0.1064
Venus	84872-04-15 05:46 G	32720026.59	32720026.74	32720026.88	0.1877	0.1012
Mercury	84873-03-06 04:05 G	32720351.58	32720351.67	32720351.76	0.1613	0.0973
Mercury	84875-02-09 06:58 G	32721056.68	32721056.79	32721056.90	0.1625	0.0580
Mercury	84875-12-20 01:12 G	32721370.39	32721370.55	32721370.71	0.1913	0.0213
Mercury	84882-07-27 15:36 G	32723782.09	32723782.15	32723782.22	0.1610	0.1332
Mercury	84884-07-01 18:00 G	32724487.14	32724487.25	32724487.37	0.1622	0.0201
Mercury	84885-05-10 18:58 G	32724800.18	32724800.29	32724800.40	0.1918	0.1438
Mercury	84893-11-22 05:17 G	32727917.61	32727917.72	32727917.84	0.1618	0.0193
Mercury	84895-10-28 08:53 G	32728622.82	32728622.87	32728622.93	0.1632	0.1424
Venus	84901-07-04 13:12 G	32730697.94	32730698.05	32730698.17	0.1645	0.1238
Mercury	84903-04-15 16:48 G	32731348.09	32731348.20	32731348.31	0.1615	0.0568
Mercury	84905-03-20 19:56 G	32732053.23	32732053.33	32732053.42	0.1628	0.1017
Mercury	84906-01-29 07:56 G	32732367.70	32732367.83	32732367.97	0.1908	0.1075
Mercury	84912-09-05 04:05 G	32734778.58	32734778.67	32734778.77	0.1612	0.0934
Mercury	84914-08-11 06:58 G	32735483.68	32735483.79	32735483.90	0.1625	0.0622
Mercury	84915-06-21 02:10 G	32735797.42	32735797.59	32735797.75	0.1913	0.0119
Mercury	84922-01-26 15:36 G	32738209.08	32738209.15	32738209.22	0.1610	0.1297
Mercury	84924-01-01 18:00 G	32738914.14	32738914.25	32738914.37	0.1621	0.0238
Mercury	84924-11-09 19:12 G	32739227.19	32739227.30	32739227.42	0.1918	0.1375
Mercury	84933-05-24 05:17 G	32742344.60	32742344.72	32742344.84	0.1618	0.0155
Venus	84933-07-03 10:34 G	32742384.79	32742384.94	32742385.09	0.1653	0.0828
Mercury	84935-04-29 08:53 G	32743049.82	32743049.87	32743049.92	0.1632	0.1458

Venus	84938-02-11 10:05 G	32744068.76	32744068.92	32744069.09	0.1881	0.0432
Mercury	84942-10-14 16:48 G	32745775.08	32745775.20	32745775.31	0.1615	0.0529
Mercury	84944-09-18 19:41 G	32746480.23	32746480.32	32746480.41	0.1628	0.1054
Mercury	84945-07-30 08:53 G	32746794.75	32746794.87	32746795.00	0.1908	0.1169
Mercury	84952-03-06 04:05 G	32749205.57	32749205.67	32749205.77	0.1612	0.0896
Mercury	84954-02-09 06:58 G	32749910.68	32749910.79	32749910.90	0.1625	0.0660
Mercury	84954-12-20 02:53 G	32750224.45	32750224.62	32750224.78	0.1913	0.0065
Mercury	84961-07-27 15:36 G	32752636.08	32752636.15	32752636.22	0.1610	0.1256
Mercury	84963-07-02 18:00 G	32753341.14	32753341.25	32753341.37	0.1621	0.0271
Mercury	84964-05-10 20:24 G	32753654.23	32753654.35	32753654.48	0.1918	0.1270
Venus	84967-05-02 00:15 G	32754740.44	32754740.51	32754740.59	0.1643	0.1456
Earth	84972-03-26 16:20 G	32756530.99	32756531.18	32756531.37	0.1732	0.0198
Moon	84972-03-26 17:03 G	32756531.00	32756531.21	32756531.41	0.1732	0.0038 *
Mercury	84972-11-22 05:17 G	32756771.60	32756771.72	32756771.84	0.1618	0.0113
Mercury	84974-10-28 08:53 G	32757476.83	32757476.87	32757476.92	0.1632	0.1498
Mercury	84982-04-14 16:34 G	32760202.08	32760202.19	32760202.30	0.1615	0.0492
Mercury	84984-03-19 19:56 G	32760907.24	32760907.33	32760907.41	0.1628	0.1094
Mercury	84985-01-28 09:22 G	32761221.77	32761221.89	32761222.01	0.1908	0.1232
Mercury	84991-09-05 04:05 G	32763632.57	32763632.67	32763632.77	0.1612	0.0859
Mercury	84993-08-10 06:58 G	32764337.68	32764337.79	32764337.89	0.1625	0.0696
Mercury	84994-06-20 03:36 G	32764651.49	32764651.65	32764651.82	0.1914	0.0060
Earth	84997-09-27 21:51 G	32765847.23	32765847.41	32765847.59	0.1800	0.0679
Moon	84997-09-27 21:51 G	32765847.24	32765847.41	32765847.59	0.1800	0.0464 *
Venus	84999-04-30 21:36 G	32766427.24	32766427.40	32766427.57	0.1650	0.0609

86TH MILLENNIUM CE

This is a list of transits visible from Mars in the 86th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	85001-01-26 15:36	G	32767063.07	32767063.15	32767063.22	0.1610	0.1220	
Mercury	85003-01-01 18:00	G	32767768.13	32767768.25	32767768.37	0.1621	0.0307	
Mercury	85003-11-10 21:22	G	32768081.26	32768081.39	32768081.52	0.1918	0.1177	
Venus	85003-12-10 15:08	G	32768110.96	32768111.13	32768111.31	0.1885	0.0142	
Mercury	85010-06-19 03:08	G	32770493.61	32770493.63	32770493.65	0.1608	0.1575	
Mercury	85012-05-24 05:17	G	32771198.60	32771198.72	32771198.84	0.1618	0.0076	
Mercury	85014-04-29 08:53	G	32771903.83	32771903.87	32771903.91	0.1632	0.1537	
Mercury	85021-10-14 16:34	G	32774629.08	32774629.19	32774629.31	0.1615	0.0452	
Mercury	85023-09-19 19:56	G	32775334.24	32775334.33	32775334.41	0.1628	0.1133	
Mercury	85024-07-30 10:20	G	32775648.81	32775648.93	32775649.04	0.1908	0.1322	
Mercury	85031-03-07 04:05	G	32778059.57	32778059.67	32778059.77	0.1612	0.0821	
Mercury	85033-02-09 06:58	G	32778764.68	32778764.79	32778764.89	0.1625	0.0736	
Mercury	85033-12-20 04:20	G	32779078.52	32779078.68	32779078.85	0.1913	0.0140	
Mercury	85040-07-27 15:36	G	32781490.07	32781490.15	32781490.22	0.1610	0.1186	
Mercury	85042-07-02 18:00	G	32782195.14	32782195.25	32782195.37	0.1621	0.0345	
Mercury	85043-05-11 21:51	G	32782508.28	32782508.41	32782508.54	0.1918	0.1104	
Mercury	85049-12-18 03:08	G	32784920.60	32784920.63	32784920.66	0.1608	0.1538	
Mercury	85051-11-23 05:17	G	32785625.60	32785625.72	32785625.83	0.1618	0.0072	
Mercury	85053-10-28 08:53	G	32786330.84	32786330.87	32786330.90	0.1632	0.1572	
Mercury	85061-04-14 16:34	G	32789056.08	32789056.19	32789056.31	0.1615	0.0413	
Mercury	85063-03-20 19:41	G	32789761.24	32789761.32	32789761.40	0.1628	0.1166	
Mercury	85064-01-29 11:17	G	32790075.86	32790075.97	32790076.07	0.1908	0.1412	
Venus	85065-02-26 08:24	G	32790469.68	32790469.85	32790470.02	0.1647	0.0386	
Venus	85069-10-06 19:27	G	32792153.15	32792153.31	32792153.47	0.1889	0.0727	
Mercury	85070-09-05 04:05	G	32792486.57	32792486.67	32792486.77	0.1612	0.0783	

Mercury	85072-08-10 06:58 G	32793191.68	32793191.79	32793191.89	0.1625	0.0774
Mercury	85073-06-20 05:17 G	32793505.55	32793505.72	32793505.88	0.1913	0.0225
Mercury	85080-01-26 15:22 G	32795917.06	32795917.14	32795917.23	0.1610	0.1146
Mercury	85081-12-31 18:00 G	32796622.13	32796622.25	32796622.37	0.1621	0.0382
Mercury	85082-11-09 22:48 G	32796935.31	32796935.45	32796935.59	0.1918	0.1009
Mercury	85089-06-18 03:08 G	32799347.59	32799347.63	32799347.67	0.1607	0.1501
Mercury	85091-05-24 05:17 G	32800052.60	32800052.72	32800052.84	0.1618	0.0025
Mercury	85093-04-28 08:53 G	32800757.86	32800757.87	32800757.89	0.1632	0.1611
Mercury	85100-10-14 16:34 G	32803483.08	32803483.19	32803483.30	0.1615	0.0378
Mercury	85102-09-19 19:56 G	32804188.25	32804188.33	32804188.40	0.1628	0.1208
Mercury	85103-07-31 11:32 G	32804502.88	32804502.98	32804503.08	0.1908	0.1478
Mercury	85110-03-07 03:51 G	32806913.56	32806913.66	32806913.77	0.1612	0.0748
Mercury	85112-02-10 06:44 G	32807618.68	32807618.78	32807618.89	0.1624	0.0807
Mercury	85112-12-20 06:00 G	32807932.59	32807932.75	32807932.91	0.1914	0.0302
Mercury	85119-07-28 15:22 G	32810344.06	32810344.14	32810344.23	0.1610	0.1108
Mercury	85121-07-02 18:00 G	32811049.14	32811049.25	32811049.36	0.1621	0.0421
Mercury	85122-05-11 23:46 G	32811362.35	32811362.49	32811362.64	0.1918	0.0910
Mercury	85128-12-18 03:08 G	32813774.58	32813774.63	32813774.67	0.1607	0.1464
Mercury	85130-11-23 05:17 G	32814479.60	32814479.72	32814479.83	0.1618	0.0060
Venus	85130-12-25 19:56 G	32814512.15	32814512.33	32814512.50	0.1645	0.0177
Venus	85135-08-05 00:15 G	32816195.39	32816195.51	32816195.63	0.1892	0.1306
Mercury	85140-04-14 16:34 G	32817910.07	32817910.19	32817910.30	0.1615	0.0339
Mercury	85142-03-20 19:41 G	32818615.25	32818615.32	32818615.40	0.1628	0.1244
Mercury	85143-01-29 12:29 G	32818929.93	32818930.02	32818930.11	0.1908	0.1563
Mercury	85149-09-05 03:51 G	32821340.56	32821340.66	32821340.77	0.1612	0.0711
Mercury	85151-08-11 06:58 G	32822045.69	32822045.79	32822045.89	0.1625	0.0850
Mercury	85152-06-20 06:58 G	32822359.63	32822359.79	32822359.95	0.1913	0.0395
Mercury	85159-01-26 15:22 G	32824771.05	32824771.14	32824771.23	0.1610	0.1073
Mercury	85160-12-31 18:00 G	32825476.13	32825476.25	32825476.36	0.1621	0.0457
Mercury	85161-11-10 00:15 G	32825789.36	32825789.51	32825789.66	0.1918	0.0845

Mercury	85168-06-18 02:53 G	32828201.57	32828201.62	32828201.68	0.1607	0.1428
Mercury	85170-05-24 05:03 G	32828906.59	32828906.71	32828906.83	0.1618	0.0083
Mercury	85179-10-14 16:34 G	32832337.07	32832337.19	32832337.31	0.1615	0.0300
Mercury	85181-09-18 19:41 G	32833042.25	32833042.32	32833042.39	0.1628	0.1281
Mercury	85182-07-30 13:27 G	32833356.99	32833357.06	32833357.14	0.1908	0.1657
Mercury	85189-03-06 03:51 G	32835767.56	32835767.66	32835767.77	0.1612	0.0672
Mercury	85191-02-09 06:58 G	32836472.69	32836472.79	32836472.88	0.1625	0.0887
Mercury	85191-12-20 07:27 G	32836786.65	32836786.81	32836786.97	0.1913	0.0472
Venus	85196-10-22 06:44 G	32838554.61	32838554.78	32838554.96	0.1643	0.0058
Mercury	85198-07-27 15:22 G	32839198.05	32839198.14	32839198.23	0.1610	0.1032
Mercury	85200-07-01 18:00 G	32839903.14	32839903.25	32839903.36	0.1621	0.0496
Mercury	85201-05-11 01:27 G	32840216.41	32840216.56	32840216.71	0.1918	0.0741
Mercury	85207-12-18 02:53 G	32842628.57	32842628.62	32842628.68	0.1607	0.1391
Mercury	85209-11-22 05:03 G	32843333.60	32843333.71	32843333.83	0.1618	0.0129
Mercury	85219-04-14 16:34 G	32846764.07	32846764.19	32846764.30	0.1615	0.0268
Mercury	85221-03-19 19:41 G	32847469.26	32847469.32	32847469.39	0.1628	0.1320
Mercury	85222-01-28 13:56 G	32847784.01	32847784.08	32847784.15	0.1908	0.1716
Mercury	85228-09-04 03:51 G	32850194.55	32850194.66	32850194.77	0.1612	0.0634
Mercury	85230-08-10 06:44 G	32850899.69	32850899.78	32850899.88	0.1624	0.0920
Mercury	85231-06-20 08:24 G	32851213.70	32851213.85	32851214.01	0.1914	0.0562
Venus	85233-05-31 22:20 G	32851925.35	32851925.43	32851925.51	0.1885	0.1662
Mercury	85238-01-25 15:22 G	32853625.05	32853625.14	32853625.23	0.1610	0.0996
Mercury	85239-12-31 18:00 G	32854330.13	32854330.25	32854330.36	0.1621	0.0535
Mercury	85240-11-09 02:10 G	32854643.44	32854643.59	32854643.75	0.1918	0.0653
Mercury	85247-06-18 02:53 G	32857055.56	32857055.62	32857055.68	0.1607	0.1352
Mercury	85249-05-23 05:03 G	32857760.60	32857760.71	32857760.83	0.1618	0.0163
Mercury	85250-03-31 19:12 G	32858073.29	32858073.30	32858073.30	0.1923	0.1919
Moon	85256-03-29 03:51 G	32860262.47	32860262.66	32860262.84	0.1740	0.0283
Earth	85256-03-29 11:03 G	32860262.79	32860262.96	32860263.13	0.1740	0.0706 *
Mercury	85258-10-13 16:34 G	32861191.07	32861191.19	32861191.30	0.1615	0.0231

Mercury	85260-09-17 19:41 G	32861896.26	32861896.32	32861896.39	0.1628	0.1358
Mercury	85261-07-29 14:53 G	32862211.07	32862211.12	32862211.17	0.1908	0.1807
Venus	85262-08-19 18:15 G	32862597.09	32862597.26	32862597.44	0.1640	0.0247
Mercury	85268-03-05 03:51 G	32864621.55	32864621.66	32864621.77	0.1612	0.0597
Mercury	85270-02-08 06:44 G	32865326.69	32865326.78	32865326.88	0.1624	0.0962
Mercury	85270-12-19 09:08 G	32865640.73	32865640.88	32865641.03	0.1913	0.0638
Mercury	85277-07-26 15:22 G	32868052.04	32868052.14	32868052.23	0.1609	0.0962
Mercury	85279-07-01 18:00 G	32868757.14	32868757.25	32868757.36	0.1621	0.0571
Mercury	85280-05-10 02:53 G	32869070.46	32869070.62	32869070.77	0.1918	0.0581
Earth	85281-09-29 21:08 G	32869578.19	32869578.38	32869578.57	0.1791	0.0432
Moon	85281-09-30 05:03 G	32869578.52	32869578.71	32869578.91	0.1792	0.0469 *
Mercury	85286-12-17 02:53 G	32871482.56	32871482.62	32871482.69	0.1607	0.1315
Mercury	85288-11-21 05:03 G	32872187.59	32872187.71	32872187.83	0.1618	0.0184
Mercury	85289-09-29 20:10 G	32872500.29	32872500.34	32872500.39	0.1923	0.1823
Mercury	85298-04-13 16:34 G	32875618.07	32875618.19	32875618.30	0.1615	0.0194
Venus	85299-03-29 02:53 G	32875967.48	32875967.62	32875967.76	0.1888	0.1088
Mercury	85300-03-19 19:41 G	32876323.26	32876323.32	32876323.38	0.1628	0.1392
Mercury	85301-01-28 15:36 G	32876638.14	32876638.15	32876638.17	0.1908	0.1894
Mercury	85307-09-05 03:51 G	32879048.55	32879048.66	32879048.77	0.1612	0.0559
Mercury	85309-08-10 06:44 G	32879753.69	32879753.78	32879753.88	0.1625	0.1001
Mercury	85310-06-20 10:05 G	32880067.77	32880067.92	32880068.07	0.1913	0.0728
Mercury	85317-01-25 15:22 G	32882479.04	32882479.14	32882479.23	0.1609	0.0922
Mercury	85318-12-31 18:00 G	32883184.14	32883184.25	32883184.36	0.1621	0.0609
Mercury	85319-11-10 03:51 G	32883497.50	32883497.66	32883497.82	0.1918	0.0486
Mercury	85326-06-18 02:53 G	32885909.55	32885909.62	32885909.69	0.1607	0.1280
Mercury	85328-05-23 05:03 G	32886614.60	32886614.71	32886614.83	0.1618	0.0229
Venus	85328-06-17 05:32 G	32886639.57	32886639.73	32886639.90	0.1638	0.0453
Mercury	85329-03-31 20:53 G	32886927.30	32886927.37	32886927.43	0.1922	0.1745
Mercury	85337-10-13 16:20 G	32890045.07	32890045.18	32890045.30	0.1615	0.0164
Mercury	85339-09-18 19:41 G	32890750.27	32890750.32	32890750.38	0.1628	0.1433

Mercury	85347-03-06 03:51 G	32893475.55	32893475.66	32893475.77	0.1612	0.0526
Mercury	85349-02-08 06:44 G	32894180.69	32894180.78	32894180.87	0.1624	0.1031
Mercury	85349-12-19 10:48 G	32894494.80	32894494.95	32894495.10	0.1914	0.0807
Mercury	85356-07-26 15:22 G	32896906.04	32896906.14	32896906.23	0.1610	0.0885
Mercury	85358-07-01 18:00 G	32897611.14	32897611.25	32897611.35	0.1621	0.0648
Mercury	85359-05-11 04:48 G	32897924.54	32897924.70	32897924.86	0.1918	0.0393
Venus	85360-06-16 02:10 G	32898326.55	32898326.59	32898326.64	0.1645	0.1578
Venus	85365-01-24 06:58 G	32900009.63	32900009.79	32900009.96	0.1892	0.0485
Mercury	85365-12-17 02:53 G	32900336.55	32900336.62	32900336.69	0.1607	0.1242
Mercury	85367-11-22 05:03 G	32901041.60	32901041.71	32901041.83	0.1618	0.0264
Mercury	85368-09-29 21:36 G	32901354.32	32901354.40	32901354.48	0.1923	0.1655
Mercury	85375-05-09 14:24 G	32903767.09	32903767.10	32903767.11	0.1605	0.1593
Mercury	85377-04-13 16:20 G	32904472.07	32904472.18	32904472.30	0.1615	0.0125
Mercury	85379-03-19 19:41 G	32905177.28	32905177.32	32905177.37	0.1628	0.1469
Mercury	85386-09-04 03:51 G	32907902.55	32907902.66	32907902.77	0.1612	0.0486
Mercury	85388-08-09 06:44 G	32908607.70	32908607.78	32908607.87	0.1624	0.1074
Mercury	85389-06-19 11:32 G	32908921.84	32908921.98	32908922.13	0.1913	0.0891
Venus	85394-04-14 16:48 G	32910682.04	32910682.20	32910682.36	0.1636	0.0664
Mercury	85396-01-25 15:08 G	32911333.03	32911333.13	32911333.23	0.1609	0.0852
Mercury	85397-12-30 17:46 G	32912038.14	32912038.24	32912038.35	0.1621	0.0683
Mercury	85398-11-09 05:03 G	32912351.55	32912351.71	32912351.88	0.1918	0.0329
Mercury	85405-06-18 02:53 G	32914763.54	32914763.62	32914763.69	0.1607	0.1205
Mercury	85407-05-24 05:03 G	32915468.59	32915468.71	32915468.83	0.1618	0.0296
Mercury	85408-03-31 22:48 G	32915781.36	32915781.45	32915781.55	0.1923	0.1551
Mercury	85414-11-08 14:24 G	32918194.08	32918194.10	32918194.12	0.1605	0.1557
Mercury	85416-10-13 16:20 G	32918899.07	32918899.18	32918899.30	0.1615	0.0099
Mercury	85418-09-18 19:41 G	32919604.28	32919604.32	32919604.37	0.1628	0.1506
Mercury	85426-03-06 03:36 G	32922329.54	32922329.65	32922329.77	0.1612	0.0454
Venus	85426-04-14 13:27 G	32922368.96	32922369.06	32922369.15	0.1643	0.1366
Mercury	85428-02-09 06:44 G	32923034.70	32923034.78	32923034.87	0.1624	0.1111

Mercury	85428-12-19 12:15 G	32923348.87	32923349.01	32923349.15	0.1913	0.0970
Venus	85430-11-22 12:00 G	32924051.82	32924052.00	32924052.17	0.1895	0.0108
Mercury	85435-07-27 15:08 G	32925760.03	32925760.13	32925760.24	0.1609	0.0814
Mercury	85437-07-01 17:46 G	32926465.14	32926465.24	32926465.35	0.1621	0.0720
Mercury	85438-05-11 06:15 G	32926778.60	32926778.76	32926778.93	0.1918	0.0226
Mercury	85444-12-17 02:39 G	32929190.54	32929190.61	32929190.69	0.1607	0.1172
Mercury	85446-11-22 05:03 G	32929895.60	32929895.71	32929895.83	0.1618	0.0337
Mercury	85447-09-30 23:17 G	32930208.36	32930208.47	32930208.57	0.1923	0.1483
Mercury	85454-05-09 14:24 G	32932621.06	32932621.10	32932621.13	0.1605	0.1522
Mercury	85456-04-13 16:20 G	32933326.06	32933326.18	32933326.30	0.1615	0.0045
Mercury	85458-03-19 19:41 G	32934031.29	32934031.32	32934031.36	0.1628	0.1543
Venus	85460-02-11 04:20 G	32934724.53	32934724.68	32934724.83	0.1633	0.0855
Earth	85461-03-29 16:05 G	32935137.11	32935137.17	32935137.23	0.1753	0.1655
Moon	85461-03-29 22:48 G	32935137.32	32935137.45	32935137.59	0.1753	0.1232
Mercury	85465-09-04 03:36 G	32936756.54	32936756.65	32936756.77	0.1612	0.0416
Mercury	85467-08-10 06:44 G	32937461.70	32937461.78	32937461.86	0.1624	0.1142
Mercury	85468-06-19 13:12 G	32937775.92	32937776.05	32937776.19	0.1914	0.1060
Mercury	85475-01-25 15:08 G	32940187.03	32940187.13	32940187.24	0.1609	0.0776
Mercury	85476-12-30 17:46 G	32940892.14	32940892.24	32940892.35	0.1621	0.0758
Mercury	85477-11-09 06:58 G	32941205.63	32941205.79	32941205.96	0.1918	0.0144
Mercury	85484-06-17 02:53 G	32943617.53	32943617.62	32943617.70	0.1607	0.1133
Mercury	85486-05-23 05:03 G	32944322.60	32944322.71	32944322.83	0.1618	0.0373
Mercury	85487-04-01 00:15 G	32944635.40	32944635.51	32944635.63	0.1923	0.1385
Venus	85492-02-10 00:29 G	32946411.40	32946411.52	32946411.65	0.1640	0.1156
Mercury	85493-11-07 14:24 G	32947048.06	32947048.10	32947048.14	0.1605	0.1484
Mercury	85495-10-13 16:20 G	32947753.06	32947753.18	32947753.30	0.1615	0.0025
Venus	85496-09-18 15:36 G	32948094.00	32948094.15	32948094.31	0.1899	0.0720
Mercury	85497-09-17 19:56 G	32948458.30	32948458.33	32948458.35	0.1628	0.1581
Mercury	85505-03-06 03:36 G	32951183.54	32951183.65	32951183.77	0.1612	0.0378
Mercury	85507-02-09 06:44 G	32951888.70	32951888.78	32951888.86	0.1624	0.1184

Mercury	85507-12-20 13:56 G	32952202.95	32952203.08	32952203.21	0.1913	0.1132
Mercury	85514-07-27 15:08 G	32954614.03	32954614.13	32954614.23	0.1609	0.0741
Mercury	85516-07-01 17:46 G	32955319.14	32955319.24	32955319.35	0.1621	0.0793
Mercury	85517-05-11 07:41 G	32955632.66	32955632.82	32955632.98	0.1918	0.0065
Mercury	85523-12-18 02:39 G	32958044.53	32958044.61	32958044.70	0.1607	0.1096
Mercury	85525-11-22 05:03 G	32958749.59	32958749.71	32958749.82	0.1618	0.0407
Venus	85525-12-09 15:36 G	32958767.02	32958767.15	32958767.28	0.1631	0.1057
Mercury	85526-10-01 01:12 G	32959062.43	32959062.55	32959062.68	0.1923	0.1291
Mercury	85533-05-09 14:24 G	32961475.05	32961475.10	32961475.14	0.1605	0.1449
Mercury	85535-04-14 16:20 G	32962180.06	32962180.18	32962180.30	0.1615	0.0034
Mercury	85537-03-19 19:41 G	32962885.31	32962885.32	32962885.33	0.1628	0.1616
Earth	85540-04-02 04:34 G	32963994.56	32963994.69	32963994.83	0.1747	0.1178
Moon	85540-04-02 08:24 G	32963994.71	32963994.85	32963994.99	0.1747	0.1037 *
Mercury	85544-09-04 03:36 G	32965610.54	32965610.65	32965610.77	0.1612	0.0341
Mercury	85546-08-10 06:44 G	32966315.71	32966315.78	32966315.86	0.1624	0.1222
Mercury	85547-06-20 14:39 G	32966629.99	32966630.11	32966630.24	0.1913	0.1218
Mercury	85554-01-25 15:08 G	32969041.03	32969041.13	32969041.24	0.1609	0.0702
Mercury	85555-12-31 17:46 G	32969746.14	32969746.24	32969746.34	0.1621	0.0829
Mercury	85556-11-09 08:39 G	32970059.70	32970059.86	32970060.02	0.1918	0.0027
Venus	85557-12-08 12:15 G	32970453.86	32970454.01	32970454.15	0.1638	0.0952
Venus	85562-07-17 20:24 G	32972136.22	32972136.35	32972136.47	0.1902	0.1318
Mercury	85563-06-18 02:39 G	32972471.52	32972471.61	32972471.70	0.1607	0.1061
Mercury	85565-05-23 05:03 G	32973176.60	32973176.71	32973176.82	0.1618	0.0446
Moon	85565-10-02 15:36 G	32973308.94	32973309.15	32973309.35	0.1781	0.0108
Earth	85565-10-02 22:34 G	32973309.24	32973309.44	32973309.63	0.1782	0.0289 *
Mercury	85566-04-01 01:56 G	32973489.45	32973489.58	32973489.70	0.1923	0.1218
Mercury	85572-11-07 14:10 G	32975902.04	32975902.09	32975902.14	0.1605	0.1413
Mercury	85574-10-13 16:20 G	32976607.06	32976607.18	32976607.30	0.1615	0.0069
Mercury	85584-03-05 03:36 G	32980037.53	32980037.65	32980037.77	0.1612	0.0303
Mercury	85586-02-08 06:44 G	32980742.71	32980742.78	32980742.85	0.1624	0.1252

Mercury	85586-12-19 15:36 G	32981057.03	32981057.15	32981057.27	0.1914	0.1300
Venus	85591-10-07 03:22 G	32982809.53	32982809.64	32982809.75	0.1629	0.1242
Mercury	85593-07-26 15:08 G	32983468.02	32983468.13	32983468.24	0.1609	0.0665
Mercury	85595-07-01 17:46 G	32984173.14	32984173.24	32984173.34	0.1621	0.0868
Mercury	85596-05-10 09:36 G	32984486.73	32984486.90	32984487.06	0.1918	0.0123
Mercury	85602-12-17 02:39 G	32986898.52	32986898.61	32986898.70	0.1607	0.1023
Mercury	85604-11-21 05:03 G	32987603.60	32987603.71	32987603.82	0.1618	0.0482
Mercury	85605-09-30 02:39 G	32987916.48	32987916.61	32987916.75	0.1923	0.1127
Mercury	85612-05-08 14:10 G	32990329.04	32990329.09	32990329.15	0.1605	0.1376
Mercury	85614-04-13 16:20 G	32991034.06	32991034.18	32991034.30	0.1615	0.0106
Mercury	85623-09-04 03:36 G	32994464.53	32994464.65	32994464.77	0.1612	0.0266
Venus	85623-10-05 23:32 G	32994496.32	32994496.48	32994496.63	0.1636	0.0745
Mercury	85625-08-09 06:44 G	32995169.71	32995169.78	32995169.85	0.1624	0.1294
Mercury	85626-06-19 16:20 G	32995484.07	32995484.18	32995484.29	0.1913	0.1377
Mercury	85633-01-24 15:08 G	32997895.02	32997895.13	32997895.23	0.1609	0.0634
Mercury	85634-12-30 17:46 G	32998600.14	32998600.24	32998600.34	0.1621	0.0900
Mercury	85635-11-09 10:05 G	32998913.76	32998913.92	32998914.08	0.1919	0.0184
Mercury	85642-06-17 02:39 G	33001325.52	33001325.61	33001325.70	0.1607	0.0987
Mercury	85644-05-22 05:03 G	33002030.59	33002030.71	33002030.82	0.1618	0.0518
Mercury	85645-03-31 03:51 G	33002343.52	33002343.66	33002343.80	0.1923	0.1025
Mercury	85651-11-07 14:10 G	33004756.03	33004756.09	33004756.15	0.1605	0.1340
Mercury	85653-10-12 16:20 G	33005461.06	33005461.18	33005461.30	0.1615	0.0143
Venus	85657-08-03 14:53 G	33006852.04	33006852.12	33006852.20	0.1627	0.1434
Venus	85660-05-13 18:58 G	33007866.22	33007866.29	33007866.36	0.1896	0.1715
Mercury	85663-03-05 03:36 G	33008891.53	33008891.65	33008891.77	0.1612	0.0230
Mercury	85665-02-07 06:44 G	33009596.72	33009596.78	33009596.85	0.1624	0.1329
Mercury	85665-12-18 17:03 G	33009911.10	33009911.21	33009911.31	0.1913	0.1454
Mercury	85672-07-25 15:08 G	33012322.02	33012322.13	33012322.24	0.1609	0.0593
Mercury	85674-06-30 17:46 G	33013027.15	33013027.24	33013027.34	0.1621	0.0939
Mercury	85675-05-10 11:03 G	33013340.80	33013340.96	33013341.13	0.1918	0.0284

Mercury	85681-12-16 02:39 G	33015752.51	33015752.61	33015752.70	0.1607	0.0954
Mercury	85683-11-21 05:03 G	33016457.60	33016457.71	33016457.82	0.1618	0.0555
Mercury	85684-09-29 04:20 G	33016770.53	33016770.68	33016770.82	0.1923	0.0962
Venus	85689-08-02 11:03 G	33018538.79	33018538.96	33018539.12	0.1634	0.0542
Mercury	85691-05-08 14:10 G	33019183.02	33019183.09	33019183.15	0.1605	0.1305
Mercury	85693-04-12 16:20 G	33019888.06	33019888.18	33019888.29	0.1614	0.0185
Mercury	85702-09-04 03:36 G	33023318.53	33023318.65	33023318.77	0.1612	0.0194
Mercury	85704-08-09 06:44 G	33024023.72	33024023.78	33024023.84	0.1624	0.1362
Mercury	85705-06-19 18:00 G	33024338.16	33024338.25	33024338.34	0.1914	0.1544
Mercury	85712-01-25 15:08 G	33026749.02	33026749.13	33026749.24	0.1609	0.0558
Mercury	85713-12-30 17:46 G	33027454.15	33027454.24	33027454.34	0.1621	0.0976
Mercury	85714-11-09 11:46 G	33027767.83	33027767.99	33027768.15	0.1918	0.0362
Mercury	85721-06-17 02:39 G	33030179.51	33030179.61	33030179.70	0.1607	0.0917
Mercury	85723-05-23 05:03 G	33030884.60	33030884.71	33030884.82	0.1618	0.0592
Venus	85723-06-02 02:53 G	33030894.60	33030894.62	33030894.63	0.1625	0.1616
Mercury	85724-03-31 05:17 G	33031197.58	33031197.72	33031197.87	0.1923	0.0864
Venus	85726-03-11 23:17 G	33031908.33	33031908.47	33031908.61	0.1899	0.1112
Mercury	85730-11-07 14:10 G	33033610.02	33033610.09	33033610.16	0.1605	0.1268
Mercury	85732-10-12 16:20 G	33034315.06	33034315.18	33034315.29	0.1615	0.0220
Mercury	85742-03-05 03:36 G	33037745.53	33037745.65	33037745.77	0.1612	0.0161
Mercury	85744-02-08 06:44 G	33038450.72	33038450.78	33038450.84	0.1624	0.1402
Mercury	85744-12-18 18:29 G	33038765.18	33038765.27	33038765.36	0.1913	0.1609
Moon	85745-04-01 02:39 G	33038868.46	33038868.61	33038868.76	0.1762	0.1150
Earth	85745-04-01 07:27 G	33038868.69	33038868.81	33038868.94	0.1761	0.1296 *
Mercury	85751-07-26 14:53 G	33041176.01	33041176.12	33041176.23	0.1609	0.0527
Mercury	85753-06-30 17:46 G	33041881.15	33041881.24	33041881.33	0.1621	0.1009
Mercury	85754-05-10 12:29 G	33042194.86	33042195.02	33042195.18	0.1919	0.0438
Venus	85755-05-31 22:34 G	33042581.26	33042581.44	33042581.61	0.1631	0.0340
Mercury	85760-12-16 02:24 G	33044606.51	33044606.60	33044606.70	0.1607	0.0882
Mercury	85762-11-21 05:03 G	33045311.60	33045311.71	33045311.81	0.1618	0.0628

Mercury	85763-09-30 06:15 G	33045624.61	33045624.76	33045624.91	0.1923	0.0773
Mercury	85770-05-08 14:10 G	33048037.01	33048037.09	33048037.16	0.1605	0.1233
Mercury	85772-04-12 16:20 G	33048742.06	33048742.18	33048742.29	0.1615	0.0257
Mercury	85779-09-29 01:41 G	33051467.56	33051467.57	33051467.59	0.1602	0.1579
Mercury	85781-09-03 03:36 G	33052172.53	33052172.65	33052172.77	0.1612	0.0126
Mercury	85783-08-09 06:44 G	33052877.73	33052877.78	33052877.83	0.1624	0.1439
Mercury	85784-06-18 19:27 G	33053192.23	33053192.31	33053192.38	0.1913	0.1695
Mercury	85791-01-24 15:08 G	33055603.01	33055603.13	33055603.24	0.1609	0.0489
Venus	85792-01-07 02:53 G	33055950.46	33055950.62	33055950.79	0.1902	0.0484
Mercury	85792-12-29 17:46 G	33056308.15	33056308.24	33056308.33	0.1621	0.1047
Mercury	85793-11-08 13:27 G	33056621.90	33056622.06	33056622.22	0.1918	0.0522
Mercury	85800-06-17 02:24 G	33059033.50	33059033.60	33059033.70	0.1607	0.0846
Mercury	85802-05-23 05:03 G	33059738.60	33059738.71	33059738.82	0.1618	0.0664
Mercury	85803-04-01 06:44 G	33060051.63	33060051.78	33060051.94	0.1923	0.0704
Mercury	85809-11-07 13:56 G	33062464.01	33062464.08	33062464.16	0.1605	0.1199
Mercury	85811-10-13 16:05 G	33063169.06	33063169.17	33063169.29	0.1614	0.0285
Mercury	85819-03-31 01:41 G	33065894.54	33065894.57	33065894.60	0.1602	0.1544
Mercury	85821-03-05 03:36 G	33066599.53	33066599.65	33066599.76	0.1612	0.0106
Venus	85821-03-29 09:36 G	33066623.73	33066623.90	33066624.08	0.1629	0.0140
Mercury	85823-02-08 06:44 G	33067304.73	33067304.78	33067304.83	0.1624	0.1470
Mercury	85823-12-19 20:10 G	33067619.29	33067619.34	33067619.40	0.1914	0.1777
Earth	85824-04-04 20:39 G	33067726.28	33067726.36	33067726.44	0.1755	0.1585
Moon	85824-04-05 00:15 G	33067726.40	33067726.51	33067726.63	0.1755	0.1446 *
Mercury	85830-07-26 14:53 G	33070030.01	33070030.12	33070030.24	0.1609	0.0453
Mercury	85832-06-30 17:46 G	33070735.15	33070735.24	33070735.33	0.1621	0.1085
Mercury	85833-05-10 14:10 G	33071048.94	33071049.09	33071049.25	0.1918	0.0611
Mercury	85839-12-17 02:24 G	33073460.50	33073460.60	33073460.70	0.1607	0.0809
Mercury	85841-11-21 05:03 G	33074165.60	33074165.71	33074165.81	0.1618	0.0700
Mercury	85842-09-30 07:41 G	33074478.67	33074478.82	33074478.98	0.1923	0.0614
Mercury	85849-05-08 13:56 G	33076891.00	33076891.08	33076891.16	0.1604	0.1163

Earth	85849-10-05 00:44 G	33077040.33	33077040.53	33077040.72	0.1773	0.0203
Moon	85849-10-05 01:12 G	33077040.37	33077040.55	33077040.72	0.1773	0.0354 *
Mercury	85851-04-13 16:05 G	33077596.06	33077596.17	33077596.29	0.1614	0.0323
Mercury	85852-02-20 00:29 G	33077908.49	33077908.52	33077908.55	0.1927	0.1879
Venus	85857-11-04 07:27 G	33079992.64	33079992.81	33079992.98	0.1905	0.0130
Mercury	85858-09-29 01:41 G	33080321.53	33080321.57	33080321.60	0.1602	0.1511
Mercury	85860-09-03 03:36 G	33081026.53	33081026.65	33081026.76	0.1612	0.0076
Mercury	85862-08-09 06:44 G	33081731.74	33081731.78	33081731.82	0.1624	0.1510
Mercury	85863-06-19 20:53 G	33082046.33	33082046.37	33082046.41	0.1913	0.1846
Mercury	85870-01-24 14:53 G	33084457.01	33084457.12	33084457.23	0.1609	0.0417
Mercury	85871-12-30 17:46 G	33085162.15	33085162.24	33085162.32	0.1621	0.1117
Mercury	85872-11-08 14:53 G	33085475.97	33085476.12	33085476.27	0.1919	0.0677
Mercury	85879-06-17 02:24 G	33087887.50	33087887.60	33087887.70	0.1607	0.0773
Mercury	85881-05-22 04:48 G	33088592.60	33088592.70	33088592.81	0.1618	0.0735
Mercury	85882-03-31 08:53 G	33088905.71	33088905.87	33088906.03	0.1923	0.0518
Venus	85887-01-24 21:36 G	33090666.22	33090666.40	33090666.58	0.1627	0.0054
Mercury	85888-11-06 13:56 G	33091318.00	33091318.08	33091318.16	0.1604	0.1127
Mercury	85890-10-12 16:05 G	33092023.06	33092023.17	33092023.29	0.1615	0.0360
Mercury	85891-08-21 01:12 G	33092335.50	33092335.55	33092335.61	0.1927	0.1793
Mercury	85898-03-30 01:41 G	33094748.53	33094748.57	33094748.61	0.1602	0.1473
Mercury	85900-03-05 03:22 G	33095453.53	33095453.64	33095453.76	0.1612	0.0048
Mercury	85902-02-08 06:44 G	33096158.75	33096158.78	33096158.81	0.1624	0.1545
Mercury	85909-07-26 14:53 G	33098884.01	33098884.12	33098884.24	0.1609	0.0380
Mercury	85911-07-01 17:46 G	33099589.16	33099589.24	33099589.32	0.1621	0.1155
Mercury	85912-05-10 15:51 G	33099903.01	33099903.16	33099903.31	0.1918	0.0768
Mercury	85918-12-17 02:24 G	33102314.49	33102314.60	33102314.70	0.1606	0.0742
Mercury	85920-11-21 05:03 G	33103019.60	33103019.71	33103019.81	0.1617	0.0772
Mercury	85921-09-30 09:08 G	33103332.72	33103332.88	33103333.04	0.1923	0.0456
Venus	85923-09-02 10:48 G	33104034.79	33104034.95	33104035.10	0.1909	0.0770
Mercury	85928-05-08 13:56 G	33105745.00	33105745.08	33105745.17	0.1604	0.1092

Mercury	85930-04-13 16:05 G	33106450.05	33106450.17	33106450.28	0.1614	0.0389
Mercury	85931-02-20 02:10 G	33106762.52	33106762.59	33106762.67	0.1927	0.1705
Mercury	85937-09-29 01:41 G	33109175.52	33109175.57	33109175.62	0.1602	0.1439
Mercury	85939-09-04 03:22 G	33109880.53	33109880.64	33109880.76	0.1612	0.0057
Mercury	85941-08-09 06:44 G	33110585.75	33110585.78	33110585.80	0.1624	0.1578
Mercury	85949-01-24 14:53 G	33113311.00	33113311.12	33113311.23	0.1609	0.0344
Mercury	85950-12-30 17:46 G	33114016.16	33114016.24	33114016.32	0.1621	0.1191
Mercury	85951-11-09 16:34 G	33114330.04	33114330.19	33114330.33	0.1918	0.0845
Venus	85952-11-22 08:53 G	33114708.70	33114708.87	33114709.04	0.1625	0.0253
Mercury	85958-06-17 02:24 G	33116741.49	33116741.60	33116741.70	0.1607	0.0703
Mercury	85960-05-22 04:48 G	33117446.60	33117446.70	33117446.81	0.1617	0.0807
Mercury	85961-03-31 10:05 G	33117759.76	33117759.92	33117760.09	0.1923	0.0365
Mercury	85967-11-07 13:56 G	33120171.99	33120172.08	33120172.17	0.1604	0.1057
Mercury	85969-10-12 16:05 G	33120877.06	33120877.17	33120877.29	0.1614	0.0429
Mercury	85970-08-21 02:53 G	33121189.54	33121189.62	33121189.71	0.1927	0.1623
Mercury	85977-03-30 01:27 G	33123602.51	33123602.56	33123602.62	0.1602	0.1407
Mercury	85979-03-05 03:22 G	33124307.52	33124307.64	33124307.76	0.1611	0.0060
Mercury	85981-02-07 06:44 G	33125012.77	33125012.78	33125012.79	0.1624	0.1616
Mercury	85988-07-25 14:53 G	33127738.00	33127738.12	33127738.23	0.1609	0.0314
Venus	85989-06-29 14:53 G	33128077.01	33128077.12	33128077.24	0.1912	0.1395
Mercury	85990-06-30 17:46 G	33128443.16	33128443.24	33128443.32	0.1621	0.1223
Mercury	85991-05-10 17:17 G	33128757.08	33128757.22	33128757.36	0.1919	0.0921
Mercury	85997-12-16 02:24 G	33131168.49	33131168.60	33131168.70	0.1607	0.0670
Mercury	85999-11-21 04:48 G	33131873.60	33131873.70	33131873.80	0.1617	0.0840
Mercury	86000-09-29 11:03 G	33132186.80	33132186.96	33132187.13	0.1923	0.0274

87TH MILLENNIUM CE

This is a list of transits visible from Mars in the 87th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	86007-05-08 13:56	G	33134598.99	33134599.08	33134599.17	0.1604	0.1021	
Mercury	86009-04-12 16:05	G	33135304.06	33135304.17	33135304.28	0.1614	0.0463	
Mercury	86010-02-19 03:51	G	33135616.56	33135616.66	33135616.76	0.1927	0.1537	
Mercury	86016-09-28 01:27	G	33138029.50	33138029.56	33138029.62	0.1602	0.1369	
Mercury	86018-09-03 03:22	G	33138734.52	33138734.64	33138734.76	0.1612	0.0094	
Venus	86018-09-19 20:53	G	33138751.20	33138751.37	33138751.54	0.1623	0.0435	
Mercury	86028-01-24 14:53	G	33142165.00	33142165.12	33142165.23	0.1609	0.0276	
Moon	86029-04-03 18:15	G	33142600.11	33142600.26	33142600.41	0.1770	0.0897	
Earth	86029-04-03 20:53	G	33142600.22	33142600.37	33142600.53	0.1770	0.1010	*
Mercury	86029-12-29 17:46	G	33142870.17	33142870.24	33142870.31	0.1621	0.1261	
Mercury	86030-11-08 18:00	G	33143184.11	33143184.25	33143184.39	0.1918	0.1002	
Mercury	86037-06-16 02:10	G	33145595.49	33145595.59	33145595.70	0.1606	0.0637	
Mercury	86039-05-22 04:48	G	33146300.60	33146300.70	33146300.80	0.1617	0.0877	
Mercury	86040-03-30 11:32	G	33146613.82	33146613.98	33146614.15	0.1923	0.0208	
Mercury	86046-11-06 13:56	G	33149025.98	33149026.08	33149026.17	0.1604	0.0988	
Mercury	86048-10-11 16:05	G	33149731.05	33149731.17	33149731.28	0.1614	0.0497	
Mercury	86049-08-20 04:48	G	33150043.59	33150043.70	33150043.80	0.1927	0.1449	
Venus	86050-09-18 16:20	G	33150438.12	33150438.18	33150438.24	0.1629	0.1520	
Mercury	86056-03-29 01:27	G	33152456.50	33152456.56	33152456.62	0.1602	0.1335	
Mercury	86058-03-04 03:22	G	33153161.52	33153161.64	33153161.76	0.1612	0.0127	
Mercury	86067-07-25 14:53	G	33156592.00	33156592.12	33156592.23	0.1609	0.0243	
Mercury	86069-06-29 17:46	G	33157297.17	33157297.24	33157297.31	0.1621	0.1298	

Mercury	86070-05-09 18:58 G	33157611.15	33157611.29	33157611.42	0.1918	0.1085
Mercury	86076-12-15 02:10 G	33160022.48	33160022.59	33160022.70	0.1606	0.0599
Mercury	86078-11-20 04:48 G	33160727.60	33160727.70	33160727.80	0.1617	0.0911
Mercury	86079-09-29 12:29 G	33161040.86	33161041.02	33161041.19	0.1923	0.0121
Venus	86084-07-17 08:24 G	33162793.68	33162793.85	33162794.01	0.1621	0.0624
Mercury	86086-05-07 13:56 G	33163452.98	33163453.08	33163453.17	0.1604	0.0954
Venus	86087-04-26 14:10 G	33163807.02	33163807.09	33163807.17	0.1906	0.1690
Mercury	86088-04-11 16:05 G	33164158.06	33164158.17	33164158.28	0.1614	0.0534
Mercury	86089-02-18 05:17 G	33164470.61	33164470.72	33164470.84	0.1927	0.1371
Mercury	86095-09-28 01:27 G	33166883.49	33166883.56	33166883.62	0.1602	0.1303
Mercury	86097-09-02 03:22 G	33167588.52	33167588.64	33167588.76	0.1611	0.0161
Mercury	86107-01-24 14:39 G	33171019.00	33171019.11	33171019.23	0.1609	0.0210
Moon	86108-04-07 03:36 G	33171457.57	33171457.65	33171457.73	0.1764	0.1584
Mercury	86108-12-29 17:46 G	33171724.17	33171724.24	33171724.30	0.1620	0.1329
Mercury	86109-11-08 19:27 G	33172038.18	33172038.31	33172038.44	0.1919	0.1155
Mercury	86116-06-16 02:10 G	33174449.48	33174449.59	33174449.70	0.1606	0.0563
Venus	86116-07-17 04:05 G	33174480.57	33174480.67	33174480.77	0.1627	0.1324
Mercury	86118-05-22 04:48 G	33175154.60	33175154.70	33175154.80	0.1617	0.0945
Mercury	86119-03-31 13:27 G	33175467.90	33175468.06	33175468.23	0.1923	0.0051
Mercury	86125-11-06 13:41 G	33177879.98	33177880.07	33177880.17	0.1604	0.0919
Mercury	86127-10-12 16:05 G	33178585.06	33178585.17	33178585.28	0.1614	0.0570
Mercury	86128-08-20 06:15 G	33178897.64	33178897.76	33178897.88	0.1927	0.1284
Earth	86133-10-07 03:51 G	33180771.47	33180771.66	33180771.86	0.1763	0.0171
Moon	86133-10-07 11:46 G	33180771.80	33180771.99	33180772.18	0.1764	0.0551 *
Mercury	86135-03-30 01:27 G	33181310.49	33181310.56	33181310.63	0.1602	0.1265
Mercury	86137-03-04 03:22 G	33182015.52	33182015.64	33182015.76	0.1611	0.0197
Mercury	86146-07-25 14:39 G	33185446.00	33185446.11	33185446.23	0.1609	0.0176
Mercury	86148-06-29 17:46 G	33186151.18	33186151.24	33186151.30	0.1621	0.1367
Mercury	86149-05-09 20:24 G	33186465.23	33186465.35	33186465.48	0.1918	0.1240
Venus	86150-05-15 20:24 G	33186836.20	33186836.35	33186836.50	0.1619	0.0805

Venus	86153-02-21 18:00 G	33187849.11	33187849.25	33187849.39	0.1909	0.1054
Mercury	86155-12-16 02:10 G	33188876.48	33188876.59	33188876.70	0.1606	0.0532
Mercury	86157-11-20 04:48 G	33189581.61	33189581.70	33189581.79	0.1617	0.0981
Mercury	86158-09-29 13:56 G	33189894.91	33189895.08	33189895.24	0.1923	0.0045
Mercury	86165-05-07 13:41 G	33192306.97	33192307.07	33192307.17	0.1604	0.0883
Mercury	86167-04-12 15:51 G	33193012.05	33193012.16	33193012.27	0.1614	0.0600
Mercury	86168-02-19 07:12 G	33193324.67	33193324.80	33193324.93	0.1928	0.1195
Mercury	86174-09-28 01:27 G	33195737.48	33195737.56	33195737.63	0.1602	0.1232
Mercury	86176-09-02 03:22 G	33196442.52	33196442.64	33196442.76	0.1611	0.0233
Venus	86182-05-14 15:36 G	33198523.02	33198523.15	33198523.27	0.1625	0.1123
Mercury	86184-02-18 12:58 G	33199168.02	33199168.04	33199168.06	0.1600	0.1574
Mercury	86186-01-23 14:39 G	33199872.99	33199873.11	33199873.23	0.1609	0.0137
Mercury	86187-12-29 17:46 G	33200578.18	33200578.24	33200578.30	0.1621	0.1402
Mercury	86188-11-07 21:08 G	33200892.26	33200892.38	33200892.49	0.1918	0.1313
Mercury	86195-06-16 02:10 G	33203303.48	33203303.59	33203303.70	0.1606	0.0494
Mercury	86197-05-21 04:48 G	33204008.61	33204008.70	33204008.79	0.1617	0.1016
Mercury	86198-03-30 14:53 G	33204321.96	33204322.12	33204322.29	0.1923	0.0134
Mercury	86204-11-06 13:41 G	33206733.97	33206734.07	33206734.17	0.1604	0.0849
Mercury	86206-10-12 16:05 G	33207439.06	33207439.17	33207439.27	0.1614	0.0641
Mercury	86207-08-21 07:41 G	33207751.69	33207751.82	33207751.96	0.1927	0.1122
Mercury	86214-03-30 01:12 G	33210164.47	33210164.55	33210164.63	0.1602	0.1200
Mercury	86216-03-04 03:22 G	33210869.52	33210869.64	33210869.75	0.1611	0.0269
Venus	86216-03-13 07:56 G	33210878.69	33210878.83	33210878.97	0.1617	0.0991
Venus	86218-12-20 21:22 G	33211891.22	33211891.39	33211891.56	0.1912	0.0404
Mercury	86223-08-20 12:58 G	33213595.01	33213595.04	33213595.07	0.1600	0.1539
Mercury	86225-07-25 14:39 G	33214299.99	33214300.11	33214300.23	0.1609	0.0104
Mercury	86227-06-30 17:46 G	33215005.18	33215005.24	33215005.29	0.1620	0.1434
Mercury	86228-05-09 21:51 G	33215319.30	33215319.41	33215319.52	0.1919	0.1392
Mercury	86234-12-16 02:10 G	33217730.47	33217730.59	33217730.70	0.1606	0.0460
Mercury	86236-11-20 04:48 G	33218435.61	33218435.70	33218435.79	0.1617	0.1051

Mercury	86237-09-29 15:51 G	33218748.99	33218749.16	33218749.32	0.1923	0.0214
Mercury	86244-05-07 13:41 G	33221160.97	33221161.07	33221161.17	0.1604	0.0814
Mercury	86246-04-12 15:51 G	33221866.06	33221866.16	33221866.27	0.1614	0.0674
Mercury	86247-02-19 08:39 G	33222178.72	33222178.86	33222179.00	0.1927	0.1035
Venus	86248-03-12 02:53 G	33222565.48	33222565.62	33222565.77	0.1623	0.0923
Mercury	86253-09-28 01:12 G	33224591.47	33224591.55	33224591.63	0.1602	0.1163
Mercury	86255-09-03 03:22 G	33225296.52	33225296.64	33225296.75	0.1611	0.0305
Mercury	86263-02-18 12:58 G	33228022.00	33228022.04	33228022.07	0.1600	0.1509
Mercury	86265-01-23 14:39 G	33228726.99	33228727.11	33228727.23	0.1609	0.0066
Mercury	86266-12-29 17:46 G	33229432.19	33229432.24	33229432.28	0.1620	0.1472
Mercury	86267-11-08 22:34 G	33229746.34	33229746.44	33229746.55	0.1918	0.1466
Mercury	86274-06-16 01:56 G	33232157.47	33232157.58	33232157.70	0.1606	0.0432
Mercury	86276-05-21 04:48 G	33232862.61	33232862.70	33232862.78	0.1617	0.1085
Mercury	86277-03-30 16:20 G	33233176.02	33233176.18	33233176.34	0.1923	0.0278
Venus	86282-01-08 20:10 G	33234921.22	33234921.34	33234921.46	0.1616	0.1168
Mercury	86283-11-06 13:41 G	33235587.97	33235588.07	33235588.17	0.1604	0.0781
Venus	86284-10-17 01:12 G	33235933.38	33235933.55	33235933.72	0.1914	0.0233
Mercury	86285-10-11 15:51 G	33236293.05	33236293.16	33236293.27	0.1614	0.0704
Mercury	86286-08-20 09:36 G	33236605.76	33236605.90	33236606.04	0.1928	0.0946
Mercury	86293-03-29 01:12 G	33239018.47	33239018.55	33239018.63	0.1602	0.1129
Mercury	86295-03-04 03:08 G	33239723.52	33239723.63	33239723.75	0.1611	0.0341
Mercury	86302-08-20 12:58 G	33242448.99	33242449.04	33242449.08	0.1600	0.1472
Mercury	86304-07-25 14:39 G	33243153.99	33243154.11	33243154.23	0.1609	0.0039
Mercury	86306-06-30 17:46 G	33243859.20	33243859.24	33243859.28	0.1621	0.1507
Mercury	86307-05-10 23:17 G	33244173.38	33244173.47	33244173.57	0.1918	0.1547
Earth	86313-04-07 08:39 G	33246331.69	33246331.86	33246332.03	0.1778	0.0790
Moon	86313-04-07 16:20 G	33246332.00	33246332.18	33246332.37	0.1778	0.0484 *
Mercury	86313-12-16 01:56 G	33246584.47	33246584.58	33246584.70	0.1606	0.0395
Venus	86314-01-08 14:53 G	33246607.96	33246608.12	33246608.28	0.1621	0.0737
Mercury	86315-11-21 04:48 G	33247289.61	33247289.70	33247289.78	0.1617	0.1120

Mercury	86316-09-29 17:17 G	33247603.06	33247603.22	33247603.38	0.1923	0.0365
Mercury	86323-05-08 13:41 G	33250014.96	33250015.07	33250015.17	0.1604	0.0748
Mercury	86325-04-12 15:51 G	33250720.06	33250720.16	33250720.27	0.1614	0.0742
Mercury	86326-02-19 10:05 G	33251032.78	33251032.92	33251033.07	0.1927	0.0876
Mercury	86332-09-28 01:12 G	33253445.46	33253445.55	33253445.63	0.1602	0.1098
Mercury	86334-09-03 03:08 G	33254150.52	33254150.63	33254150.75	0.1611	0.0371
Mercury	86342-02-18 12:44 G	33256875.99	33256876.03	33256876.08	0.1600	0.1439
Mercury	86344-01-24 14:24 G	33257580.99	33257581.10	33257581.22	0.1609	0.0052
Mercury	86345-12-29 17:32 G	33258286.20	33258286.23	33258286.27	0.1620	0.1537
Mercury	86346-11-09 00:00 G	33258600.42	33258600.50	33258600.59	0.1919	0.1619
Venus	86347-11-07 07:56 G	33258963.73	33258963.83	33258963.92	0.1614	0.1349
Venus	86350-08-15 04:05 G	33259975.52	33259975.67	33259975.83	0.1917	0.0903
Mercury	86353-06-16 01:56 G	33261011.47	33261011.58	33261011.70	0.1606	0.0360
Mercury	86355-05-22 04:34 G	33261716.61	33261716.69	33261716.78	0.1617	0.1156
Mercury	86356-03-30 18:15 G	33262030.10	33262030.26	33262030.41	0.1923	0.0454
Mercury	86362-11-06 13:27 G	33264441.96	33264442.06	33264442.17	0.1604	0.0714
Mercury	86364-10-11 15:51 G	33265147.06	33265147.16	33265147.27	0.1614	0.0777
Mercury	86365-08-20 11:03 G	33265459.81	33265459.96	33265460.11	0.1927	0.0788
Mercury	86372-03-29 01:12 G	33267872.46	33267872.55	33267872.63	0.1602	0.1061
Mercury	86374-03-04 03:08 G	33268577.52	33268577.63	33268577.75	0.1611	0.0404
Venus	86379-11-06 02:10 G	33270650.43	33270650.59	33270650.76	0.1619	0.0541
Mercury	86381-08-19 12:44 G	33271302.98	33271303.03	33271303.08	0.1600	0.1406
Mercury	86383-07-25 14:39 G	33272007.99	33272008.11	33272008.22	0.1609	0.0065
Mercury	86385-06-29 17:46 G	33272713.21	33272713.24	33272713.26	0.1620	0.1576
Mercury	86386-05-10 00:58 G	33273027.46	33273027.54	33273027.61	0.1918	0.1697
Mercury	86392-12-15 01:56 G	33275438.46	33275438.58	33275438.69	0.1606	0.0326
Mercury	86394-11-20 04:48 G	33276143.62	33276143.70	33276143.78	0.1617	0.1190
Mercury	86395-09-29 18:29 G	33276457.11	33276457.27	33276457.43	0.1923	0.0511
Mercury	86402-05-07 13:27 G	33278868.96	33278869.06	33278869.17	0.1604	0.0678
Mercury	86404-04-11 15:51 G	33279574.06	33279574.16	33279574.26	0.1614	0.0807

Mercury	86405-02-18 12:00 G	33279886.85	33279887.00	33279887.16	0.1928	0.0700
Mercury	86411-09-28 00:58 G	33282299.46	33282299.54	33282299.63	0.1602	0.1029
Mercury	86413-09-02 03:08 G	33283004.52	33283004.63	33283004.75	0.1611	0.0440
Venus	86413-09-03 19:56 G	33283006.28	33283006.33	33283006.38	0.1612	0.1526
Venus	86416-06-11 07:56 G	33284017.73	33284017.83	33284017.93	0.1920	0.1549
Moon	86417-10-09 01:41 G	33284502.37	33284502.57	33284502.77	0.1754	0.0293
Earth	86417-10-09 08:39 G	33284502.67	33284502.86	33284503.06	0.1754	0.0199 *
Mercury	86421-02-17 12:44 G	33285729.97	33285730.03	33285730.09	0.1600	0.1370
Mercury	86423-01-23 14:24 G	33286434.98	33286435.10	33286435.22	0.1609	0.0080
Mercury	86424-12-28 17:46 G	33287140.23	33287140.24	33287140.25	0.1620	0.1611
Mercury	86425-11-08 01:27 G	33287454.50	33287454.56	33287454.62	0.1919	0.1770
Mercury	86432-06-15 01:56 G	33289865.47	33289865.58	33289865.70	0.1606	0.0288
Mercury	86434-05-21 04:34 G	33290570.62	33290570.69	33290570.77	0.1617	0.1225
Mercury	86435-03-30 19:41 G	33290884.16	33290884.32	33290884.47	0.1923	0.0604
Mercury	86441-11-05 13:27 G	33293295.95	33293296.06	33293296.17	0.1604	0.0645
Mercury	86443-10-11 15:51 G	33294001.06	33294001.16	33294001.26	0.1614	0.0845
Mercury	86444-08-19 12:29 G	33294313.87	33294314.02	33294314.18	0.1927	0.0631
Venus	86445-09-02 14:24 G	33294692.93	33294693.10	33294693.27	0.1617	0.0363
Mercury	86451-03-29 00:58 G	33296726.45	33296726.54	33296726.63	0.1602	0.0996
Mercury	86453-03-03 03:08 G	33297431.52	33297431.63	33297431.74	0.1611	0.0470
Mercury	86454-01-09 05:03 G	33297743.69	33297743.71	33297743.74	0.1931	0.1901
Mercury	86460-08-18 12:44 G	33300156.97	33300157.03	33300157.09	0.1600	0.1336
Mercury	86462-07-24 14:24 G	33300861.98	33300862.10	33300862.22	0.1609	0.0106
Mercury	86465-05-09 02:24 G	33301881.56	33301881.60	33301881.64	0.1919	0.1849
Mercury	86471-12-15 01:56 G	33304292.46	33304292.58	33304292.70	0.1606	0.0255
Mercury	86473-11-19 04:34 G	33304997.62	33304997.69	33304997.77	0.1617	0.1259
Mercury	86474-09-28 20:24 G	33305311.20	33305311.35	33305311.50	0.1923	0.0683
Mercury	86481-05-06 13:27 G	33307722.95	33307723.06	33307723.17	0.1604	0.0610
Mercury	86483-04-11 15:51 G	33308428.06	33308428.16	33308428.26	0.1614	0.0878
Mercury	86484-02-18 13:27 G	33308740.90	33308741.06	33308741.22	0.1928	0.0546

Mercury	86490-09-27 00:58 G	33311153.45	33311153.54	33311153.63	0.1602	0.0959
Mercury	86492-09-01 03:08 G	33311858.52	33311858.63	33311858.74	0.1611	0.0507
Mercury	86493-07-10 06:15 G	33312170.70	33312170.76	33312170.81	0.1931	0.1804
Mercury	86500-02-17 12:44 G	33314583.96	33314584.03	33314584.09	0.1600	0.1306
Mercury	86502-01-23 14:24 G	33315288.98	33315289.10	33315289.22	0.1608	0.0141
Mercury	86504-11-08 03:08 G	33316308.63	33316308.63	33316308.63	0.1919	0.1918
Mercury	86511-06-16 01:56 G	33318719.46	33318719.58	33318719.69	0.1606	0.0229
Venus	86511-07-02 02:10 G	33318735.41	33318735.59	33318735.76	0.1615	0.0178
Mercury	86513-05-21 04:34 G	33319424.62	33319424.69	33319424.76	0.1617	0.1292
Mercury	86514-03-30 20:53 G	33319738.22	33319738.37	33319738.52	0.1923	0.0748
Venus	86514-04-09 07:56 G	33319747.74	33319747.83	33319747.92	0.1915	0.1593
Mercury	86520-11-05 13:27 G	33322149.95	33322150.06	33322150.17	0.1604	0.0576
Mercury	86522-10-11 15:51 G	33322855.06	33322855.16	33322855.25	0.1614	0.0911
Mercury	86523-08-20 14:24 G	33323167.94	33323168.10	33323168.26	0.1928	0.0456
Mercury	86530-03-29 00:58 G	33325580.44	33325580.54	33325580.63	0.1602	0.0926
Mercury	86532-03-03 03:08 G	33326285.52	33326285.63	33326285.74	0.1611	0.0541
Mercury	86533-01-09 06:44 G	33326597.71	33326597.78	33326597.86	0.1931	0.1727
Mercury	86539-08-19 12:44 G	33329010.96	33329011.03	33329011.10	0.1600	0.1270
Mercury	86541-07-24 14:24 G	33329715.98	33329716.10	33329716.22	0.1608	0.0174
Mercury	86550-12-15 01:56 G	33333146.46	33333146.58	33333146.69	0.1606	0.0190
Mercury	86552-11-19 04:34 G	33333851.63	33333851.69	33333851.76	0.1617	0.1326
Mercury	86553-09-28 21:51 G	33334165.26	33334165.41	33334165.56	0.1923	0.0834
Mercury	86560-05-06 13:27 G	33336576.95	33336577.06	33336577.17	0.1604	0.0545
Mercury	86562-04-11 15:51 G	33337282.06	33337282.16	33337282.25	0.1614	0.0947
Mercury	86563-02-18 14:53 G	33337594.96	33337595.12	33337595.28	0.1928	0.0390
Mercury	86569-09-27 00:58 G	33340007.44	33340007.54	33340007.63	0.1602	0.0896
Mercury	86571-09-02 03:08 G	33340712.52	33340712.63	33340712.74	0.1611	0.0574
Mercury	86572-07-10 07:41 G	33341024.74	33341024.82	33341024.90	0.1932	0.1645
Venus	86577-04-28 14:10 G	33342777.91	33342778.09	33342778.26	0.1614	0.0018
Mercury	86579-02-17 12:29 G	33343437.95	33343438.02	33343438.10	0.1600	0.1237

Venus	86580-02-04 11:17 G	33343789.82	33343789.97	33343790.12	0.1917	0.0932
Mercury	86581-01-22 14:24 G	33344142.98	33344143.10	33344143.21	0.1608	0.0209
Mercury	86588-07-10 00:15 G	33346868.50	33346868.51	33346868.53	0.1598	0.1576
Mercury	86590-06-15 01:56 G	33347573.46	33347573.58	33347573.69	0.1606	0.0160
Mercury	86592-05-20 04:34 G	33348278.63	33348278.69	33348278.75	0.1617	0.1361
Mercury	86593-03-29 22:34 G	33348592.30	33348592.44	33348592.59	0.1923	0.0919
Moon	86597-04-08 16:34 G	33350063.00	33350063.19	33350063.38	0.1787	0.0656
Earth	86597-04-08 19:41 G	33350063.14	33350063.32	33350063.50	0.1787	0.0610 *
Mercury	86599-11-05 13:27 G	33351003.94	33351004.06	33351004.17	0.1604	0.0512
Mercury	86601-10-11 15:51 G	33351709.06	33351709.16	33351709.25	0.1614	0.0982
Mercury	86602-08-20 15:51 G	33352022.00	33352022.16	33352022.32	0.1928	0.0302
Mercury	86609-03-29 00:58 G	33354434.44	33354434.54	33354434.63	0.1602	0.0860
Mercury	86611-03-04 03:08 G	33355139.52	33355139.63	33355139.74	0.1611	0.0610
Mercury	86612-01-10 08:39 G	33355451.76	33355451.86	33355451.95	0.1931	0.1560
Mercury	86618-08-19 12:29 G	33357864.95	33357865.02	33357865.10	0.1600	0.1205
Mercury	86620-07-24 14:24 G	33358569.98	33358570.10	33358570.22	0.1608	0.0243
Mercury	86628-01-10 00:15 G	33361295.48	33361295.51	33361295.54	0.1598	0.1543
Mercury	86629-12-15 01:41 G	33362000.45	33362000.57	33362000.69	0.1606	0.0128
Mercury	86631-11-20 04:34 G	33362705.63	33362705.69	33362705.75	0.1617	0.1394
Mercury	86632-09-28 23:03 G	33363019.32	33363019.46	33363019.60	0.1924	0.0979
Mercury	86639-05-07 13:12 G	33365430.94	33365431.05	33365431.17	0.1604	0.0476
Mercury	86641-04-11 15:36 G	33366136.06	33366136.15	33366136.25	0.1614	0.1013
Mercury	86642-02-18 16:48 G	33366449.04	33366449.20	33366449.37	0.1928	0.0217
Venus	86643-02-25 01:56 G	33366820.41	33366820.58	33366820.76	0.1612	0.0183
Venus	86645-12-02 14:24 G	33367831.93	33367832.10	33367832.27	0.1920	0.0258
Mercury	86648-09-27 00:44 G	33368861.43	33368861.53	33368861.63	0.1602	0.0828
Mercury	86650-09-02 03:08 G	33369566.52	33369566.63	33369566.74	0.1611	0.0645
Mercury	86651-07-11 09:22 G	33369878.79	33369878.89	33369879.00	0.1931	0.1474
Mercury	86658-02-17 12:29 G	33372291.94	33372292.02	33372292.10	0.1600	0.1169
Mercury	86660-01-23 14:24 G	33372996.98	33372997.10	33372997.21	0.1608	0.0279

Mercury	86667-07-11 00:15 G	33375722.47	33375722.51	33375722.54	0.1598	0.1509
Mercury	86669-06-15 01:41 G	33376427.46	33376427.57	33376427.69	0.1606	0.0100
Mercury	86671-05-21 04:34 G	33377132.64	33377132.69	33377132.74	0.1617	0.1428
Mercury	86672-03-30 00:15 G	33377446.37	33377446.51	33377446.64	0.1923	0.1068
Mercury	86678-11-05 13:12 G	33379857.94	33379858.05	33379858.17	0.1603	0.0444
Mercury	86680-10-10 15:51 G	33380563.07	33380563.16	33380563.25	0.1614	0.1050
Mercury	86681-08-19 17:17 G	33380876.06	33380876.22	33380876.39	0.1928	0.0149
Mercury	86688-03-28 00:44 G	33383288.43	33383288.53	33383288.63	0.1601	0.0794
Mercury	86690-03-03 02:53 G	33383993.52	33383993.62	33383993.73	0.1611	0.0675
Mercury	86691-01-09 10:05 G	33384305.81	33384305.92	33384306.03	0.1932	0.1401
Mercury	86697-08-18 12:29 G	33386718.94	33386719.02	33386719.10	0.1600	0.1135
Mercury	86699-07-24 14:24 G	33387423.98	33387424.10	33387424.21	0.1608	0.0316
Moon	86701-10-12 14:39 G	33388233.94	33388234.11	33388234.29	0.1746	0.0567
Earth	86701-10-12 15:08 G	33388233.94	33388234.13	33388234.33	0.1746	0.0309 *
Mercury	86707-01-10 00:15 G	33390149.46	33390149.51	33390149.55	0.1598	0.1477
Mercury	86708-12-15 01:41 G	33390854.45	33390854.57	33390854.69	0.1606	0.0065
Venus	86708-12-23 14:10 G	33390862.92	33390863.09	33390863.27	0.1611	0.0356
Mercury	86710-11-20 04:34 G	33391559.64	33391559.69	33391559.74	0.1617	0.1464
Mercury	86711-09-30 00:58 G	33391873.41	33391873.54	33391873.67	0.1923	0.1145
Venus	86711-09-30 17:46 G	33391874.07	33391874.24	33391874.41	0.1923	0.0401
Mercury	86718-05-07 13:12 G	33394284.94	33394285.05	33394285.16	0.1604	0.0408
Mercury	86720-04-11 15:51 G	33394990.07	33394990.16	33394990.24	0.1614	0.1084
Mercury	86721-02-18 18:15 G	33395303.10	33395303.26	33395303.42	0.1928	0.0063
Mercury	86727-09-28 00:44 G	33397715.43	33397715.53	33397715.64	0.1601	0.0758
Mercury	86729-09-02 02:53 G	33398420.52	33398420.62	33398420.73	0.1611	0.0714
Mercury	86730-07-11 11:03 G	33398732.84	33398732.96	33398733.08	0.1931	0.1309
Mercury	86737-02-17 12:29 G	33401145.93	33401146.02	33401146.10	0.1599	0.1106
Mercury	86739-01-23 14:10 G	33401850.98	33401851.09	33401851.21	0.1608	0.0349
Venus	86740-12-22 08:39 G	33402549.81	33402549.86	33402549.91	0.1616	0.1529
Mercury	86746-07-11 00:00 G	33404576.46	33404576.50	33404576.55	0.1598	0.1443

Mercury	86748-06-15 01:41 G	33405281.45	33405281.57	33405281.69	0.1606	0.0021
Mercury	86750-05-21 04:34 G	33405986.65	33405986.69	33405986.73	0.1617	0.1495
Mercury	86751-03-31 01:27 G	33406300.44	33406300.56	33406300.69	0.1924	0.1211
Mercury	86757-11-05 13:12 G	33408711.94	33408712.05	33408712.16	0.1604	0.0373
Mercury	86759-10-11 15:36 G	33409417.07	33409417.15	33409417.24	0.1614	0.1116
Mercury	86760-08-19 19:27 G	33409730.14	33409730.31	33409730.47	0.1928	0.0059
Mercury	86767-03-29 00:44 G	33412142.43	33412142.53	33412142.63	0.1601	0.0725
Mercury	86769-03-03 02:53 G	33412847.52	33412847.62	33412847.73	0.1611	0.0746
Mercury	86770-01-09 11:46 G	33413159.86	33413159.99	33413160.12	0.1931	0.1232
Venus	86774-10-21 02:10 G	33414905.43	33414905.59	33414905.76	0.1609	0.0530
Mercury	86776-08-18 12:29 G	33415572.93	33415573.02	33415573.10	0.1600	0.1069
Venus	86777-07-27 20:39 G	33415916.22	33415916.36	33415916.51	0.1925	0.1085
Mercury	86778-07-24 14:10 G	33416277.98	33416278.09	33416278.21	0.1608	0.0382
Mercury	86786-01-09 00:00 G	33419003.45	33419003.50	33419003.55	0.1598	0.1410
Mercury	86787-12-15 01:41 G	33419708.45	33419708.57	33419708.69	0.1606	0.0020
Mercury	86789-11-19 04:34 G	33420413.66	33420413.69	33420413.73	0.1617	0.1531
Mercury	86790-09-29 02:24 G	33420727.48	33420727.60	33420727.72	0.1923	0.1295
Mercury	86797-05-06 13:12 G	33423138.93	33423139.05	33423139.16	0.1603	0.0343
Mercury	86799-04-11 15:51 G	33423844.07	33423844.16	33423844.24	0.1614	0.1153
Mercury	86800-02-18 19:41 G	33424157.16	33424157.32	33424157.48	0.1928	0.0089
Mercury	86806-09-27 00:44 G	33426569.42	33426569.53	33426569.63	0.1601	0.0693
Venus	86806-10-19 20:10 G	33426592.25	33426592.34	33426592.44	0.1614	0.1339
Mercury	86808-09-01 02:53 G	33427274.52	33427274.62	33427274.73	0.1611	0.0776
Mercury	86809-07-10 12:44 G	33427586.90	33427587.03	33427587.16	0.1932	0.1149
Mercury	86816-02-17 12:29 G	33429999.93	33430000.02	33430000.10	0.1600	0.1038
Mercury	86818-01-22 14:10 G	33430704.98	33430705.09	33430705.21	0.1608	0.0411
Mercury	86825-07-10 00:00 G	33433430.44	33433430.50	33433430.56	0.1598	0.1376
Mercury	86827-06-15 01:41 G	33434135.45	33434135.57	33434135.69	0.1606	0.0051
Mercury	86829-05-20 04:34 G	33434840.66	33434840.69	33434840.72	0.1617	0.1566
Mercury	86830-03-30 03:08 G	33435154.52	33435154.63	33435154.75	0.1923	0.1377

Mercury	86836-11-04 13:12 G	33437565.93	33437566.05	33437566.16	0.1603	0.0310
Mercury	86838-10-10 15:51 G	33438271.08	33438271.16	33438271.24	0.1614	0.1187
Mercury	86839-08-19 20:39 G	33438584.20	33438584.36	33438584.53	0.1928	0.0179
Venus	86840-08-17 14:24 G	33438947.94	33438948.10	33438948.26	0.1608	0.0704
Venus	86843-05-25 00:15 G	33439958.44	33439958.51	33439958.58	0.1928	0.1749
Mercury	86846-03-28 00:44 G	33440996.42	33440996.53	33440996.63	0.1601	0.0658
Mercury	86848-03-02 02:53 G	33441701.52	33441701.62	33441701.72	0.1611	0.0812
Mercury	86849-01-08 13:27 G	33442013.92	33442014.06	33442014.20	0.1931	0.1068
Mercury	86855-08-18 12:15 G	33444426.92	33444427.01	33444427.10	0.1599	0.1005
Mercury	86857-07-23 14:10 G	33445131.98	33445132.09	33445132.21	0.1608	0.0447
Mercury	86865-01-08 00:00 G	33447857.44	33447857.50	33447857.56	0.1598	0.1343
Mercury	86866-12-14 01:41 G	33448562.45	33448562.57	33448562.68	0.1606	0.0093
Mercury	86868-11-18 04:34 G	33449267.68	33449267.69	33449267.70	0.1617	0.1597
Mercury	86869-09-28 03:51 G	33449581.55	33449581.66	33449581.76	0.1924	0.1438
Venus	86872-08-16 08:24 G	33450634.73	33450634.85	33450634.98	0.1612	0.1166
Mercury	86876-05-05 13:12 G	33451992.93	33451993.05	33451993.16	0.1603	0.0278
Mercury	86878-04-10 15:36 G	33452698.07	33452698.15	33452698.23	0.1614	0.1216
Mercury	86879-02-17 21:36 G	33453011.24	33453011.40	33453011.57	0.1928	0.0267
Moon	86881-04-11 01:27 G	33453794.40	33453794.56	33453794.73	0.1796	0.0684
Earth	86881-04-11 05:17 G	33453794.54	33453794.72	33453794.91	0.1796	0.0478 *
Mercury	86885-09-26 00:44 G	33455423.42	33455423.53	33455423.63	0.1601	0.0626
Mercury	86887-09-01 02:53 G	33456128.52	33456128.62	33456128.72	0.1611	0.0848
Mercury	86888-07-09 14:24 G	33456440.96	33456441.10	33456441.24	0.1931	0.0983
Mercury	86895-02-16 12:15 G	33458853.92	33458854.01	33458854.11	0.1599	0.0970
Mercury	86897-01-21 14:10 G	33459558.98	33459559.09	33459559.21	0.1608	0.0479
Mercury	86904-07-10 00:00 G	33462284.43	33462284.50	33462284.56	0.1598	0.1311
Mercury	86906-06-15 01:41 G	33462989.45	33462989.57	33462989.69	0.1606	0.0119
Venus	86906-06-16 02:53 G	33462990.47	33462990.62	33462990.76	0.1606	0.0871
Mercury	86909-03-30 04:48 G	33464008.60	33464008.70	33464008.80	0.1923	0.1524
Mercury	86915-11-05 12:58 G	33466419.93	33466420.04	33466420.16	0.1603	0.0246

Mercury	86917-10-10 15:36 G	33467125.08	33467125.15	33467125.23	0.1614	0.1256
Mercury	86918-08-19 22:05 G	33467438.26	33467438.42	33467438.58	0.1928	0.0329
Mercury	86925-03-28 00:29 G	33469850.41	33469850.52	33469850.63	0.1601	0.0595
Mercury	86927-03-03 02:53 G	33470555.52	33470555.62	33470555.72	0.1611	0.0876
Mercury	86928-01-09 15:08 G	33470867.98	33470868.13	33470868.28	0.1932	0.0907
Mercury	86934-08-18 12:15 G	33473280.92	33473281.01	33473281.11	0.1599	0.0936
Mercury	86936-07-23 14:10 G	33473985.98	33473986.09	33473986.20	0.1608	0.0512
Venus	86938-06-14 20:24 G	33474677.21	33474677.35	33474677.49	0.1610	0.0985
Venus	86941-03-22 00:58 G	33475688.43	33475688.54	33475688.65	0.1923	0.1451
Mercury	86944-01-09 00:00 G	33476711.43	33476711.50	33476711.56	0.1598	0.1278
Mercury	86945-12-14 01:41 G	33477416.45	33477416.57	33477416.69	0.1606	0.0154
Mercury	86948-09-28 05:32 G	33478435.64	33478435.73	33478435.82	0.1923	0.1600
Mercury	86955-05-06 12:58 G	33480846.93	33480847.04	33480847.16	0.1603	0.0211
Mercury	86957-04-10 15:36 G	33481552.08	33481552.15	33481552.22	0.1614	0.1287
Mercury	86958-02-17 23:03 G	33481865.30	33481865.46	33481865.62	0.1928	0.0412
Mercury	86964-09-26 00:44 G	33484277.42	33484277.53	33484277.64	0.1601	0.0561
Mercury	86966-09-01 02:53 G	33484982.52	33484982.62	33484982.72	0.1611	0.0914
Mercury	86967-07-10 16:05 G	33485295.02	33485295.17	33485295.32	0.1931	0.0820
Venus	86972-04-12 14:39 G	33487032.98	33487033.11	33487033.24	0.1605	0.1047
Mercury	86974-02-16 12:15 G	33487707.91	33487708.01	33487708.10	0.1599	0.0906
Mercury	86976-01-22 14:10 G	33488412.98	33488413.09	33488413.20	0.1608	0.0545
Mercury	86983-07-09 23:46 G	33491138.42	33491138.49	33491138.57	0.1598	0.1245
Mercury	86985-06-14 01:27 G	33491843.45	33491843.56	33491843.68	0.1605	0.0190
Earth	86985-10-14 00:15 G	33491965.32	33491965.51	33491965.70	0.1738	0.0513
Moon	86985-10-14 07:41 G	33491965.65	33491965.82	33491965.99	0.1738	0.0930 *
Mercury	86988-03-29 06:15 G	33492862.68	33492862.76	33492862.84	0.1924	0.1668
Mercury	86992-11-29 11:32 G	33494568.97	33494568.98	33494569.00	0.1596	0.1581
Mercury	86994-11-04 12:58 G	33495273.93	33495274.04	33495274.16	0.1603	0.0177
Mercury	86996-10-09 15:36 G	33495979.09	33495979.15	33495979.22	0.1614	0.1319
Mercury	86997-08-19 00:15 G	33496292.35	33496292.51	33496292.67	0.1928	0.0504

88TH MILLENNIUM CE

This is a list of transits visible from Mars in the 88th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	87004-03-28 00:29	G	33498704.41	33498704.52	33498704.63	0.1601	0.0527	
Venus	87004-04-12 08:39	G	33498719.70	33498719.86	33498720.01	0.1609	0.0811	
Mercury	87006-03-03 02:53	G	33499409.53	33499409.62	33499409.72	0.1611	0.0948	
Mercury	87007-01-09 16:48	G	33499722.04	33499722.20	33499722.35	0.1932	0.0744	
Venus	87007-01-18 04:05	G	33499730.51	33499730.67	33499730.83	0.1925	0.0772	
Mercury	87013-08-18 12:15	G	33502134.91	33502135.01	33502135.11	0.1599	0.0869	
Mercury	87015-07-24 14:10	G	33502839.98	33502840.09	33502840.20	0.1608	0.0580	
Mercury	87023-01-08 23:46	G	33505565.42	33505565.49	33505565.57	0.1598	0.1213	
Mercury	87024-12-14 01:41	G	33506270.45	33506270.57	33506270.68	0.1605	0.0223	
Mercury	87027-09-29 07:12	G	33507289.73	33507289.80	33507289.86	0.1924	0.1749	
Mercury	87032-05-31 11:32	G	33508995.96	33508995.98	33508996.01	0.1596	0.1549	
Mercury	87034-05-06 12:58	G	33509700.92	33509701.04	33509701.16	0.1603	0.0142	
Mercury	87036-04-10 15:36	G	33510406.09	33510406.15	33510406.22	0.1613	0.1355	
Mercury	87037-02-18 00:29	G	33510719.36	33510719.52	33510719.68	0.1928	0.0560	
Venus	87038-02-09 03:08	G	33511075.52	33511075.63	33511075.75	0.1603	0.1203	
Mercury	87043-09-27 00:29	G	33513131.41	33513131.52	33513131.63	0.1601	0.0492	
Mercury	87045-09-01 02:53	G	33513836.52	33513836.62	33513836.71	0.1611	0.0979	
Mercury	87046-07-10 17:46	G	33514149.08	33514149.24	33514149.39	0.1932	0.0658	
Mercury	87053-02-16 12:15	G	33516561.91	33516562.01	33516562.11	0.1599	0.0838	

Mercury	87055-01-22 14:10 G	33517266.98	33517267.09	33517267.20	0.1608	0.0613
Mercury	87055-11-30 10:05 G	33517578.91	33517578.92	33517578.94	0.1935	0.1919
Mercury	87062-07-09 23:46 G	33519992.41	33519992.49	33519992.57	0.1598	0.1178
Mercury	87064-06-14 01:27 G	33520697.45	33520697.56	33520697.68	0.1606	0.0260
Mercury	87067-03-30 07:56 G	33521716.78	33521716.83	33521716.88	0.1923	0.1826
Venus	87070-02-07 20:53 G	33522762.21	33522762.37	33522762.53	0.1607	0.0641
Mercury	87071-11-30 11:32 G	33523422.95	33523422.98	33523423.02	0.1596	0.1514
Venus	87072-11-14 06:58 G	33523772.62	33523772.79	33523772.96	0.1928	0.0088
Mercury	87073-11-04 12:58 G	33524127.92	33524128.04	33524128.16	0.1603	0.0107
Mercury	87075-10-10 15:36 G	33524833.10	33524833.15	33524833.21	0.1614	0.1389
Mercury	87076-08-19 01:27 G	33525146.41	33525146.56	33525146.72	0.1928	0.0651
Mercury	87083-03-28 00:29 G	33527558.41	33527558.52	33527558.63	0.1601	0.0459
Mercury	87085-03-02 02:53 G	33528263.53	33528263.62	33528263.71	0.1611	0.1015
Mercury	87086-01-08 18:29 G	33528576.11	33528576.27	33528576.43	0.1932	0.0581
Mercury	87092-08-17 12:00 G	33530988.90	33530989.00	33530989.11	0.1599	0.0808
Mercury	87094-07-23 14:10 G	33531693.98	33531694.09	33531694.20	0.1608	0.0646
Mercury	87095-05-31 10:48 G	33532005.90	33532005.95	33532005.99	0.1935	0.1849
Mercury	87102-01-08 23:46 G	33534419.41	33534419.49	33534419.57	0.1598	0.1145
Venus	87103-12-08 15:22 G	33535118.05	33535118.14	33535118.23	0.1602	0.1372
Mercury	87103-12-15 01:27 G	33535124.45	33535124.56	33535124.68	0.1605	0.0282
Mercury	87106-09-29 08:24 G	33536143.83	33536143.85	33536143.88	0.1924	0.1892
Mercury	87111-06-01 11:32 G	33537849.94	33537849.98	33537850.02	0.1596	0.1482
Mercury	87113-05-06 12:58 G	33538554.92	33538555.04	33538555.16	0.1603	0.0072
Mercury	87115-04-11 15:36 G	33539260.10	33539260.15	33539260.21	0.1613	0.1420
Mercury	87116-02-19 02:39 G	33539573.45	33539573.61	33539573.76	0.1928	0.0737
Mercury	87122-09-27 00:29 G	33541985.41	33541985.52	33541985.63	0.1601	0.0425
Mercury	87124-09-01 02:53 G	33542690.53	33542690.62	33542690.71	0.1611	0.1049
Mercury	87125-07-10 19:12 G	33543003.15	33543003.30	33543003.46	0.1932	0.0499
Mercury	87132-02-17 12:00 G	33545415.90	33545416.00	33545416.11	0.1599	0.0773
Mercury	87134-01-22 14:10 G	33546120.98	33546121.09	33546121.20	0.1608	0.0680

Mercury	87134-11-30 11:46 G	33546432.93	33546432.99	33546433.06	0.1935	0.1759
Venus	87135-12-07 09:08 G	33546804.71	33546804.88	33546805.05	0.1606	0.0471
Venus	87138-09-12 10:20 G	33547814.76	33547814.93	33547815.09	0.1930	0.0590
Mercury	87141-07-09 23:46 G	33548846.41	33548846.49	33548846.57	0.1597	0.1113
Mercury	87143-06-15 01:27 G	33549551.45	33549551.56	33549551.68	0.1605	0.0322
Mercury	87150-11-30 11:32 G	33552276.93	33552276.98	33552277.02	0.1596	0.1451
Mercury	87152-11-04 12:58 G	33552981.92	33552982.04	33552982.16	0.1603	0.0046
Mercury	87154-10-10 15:51 G	33553687.11	33553687.16	33553687.20	0.1613	0.1458
Mercury	87155-08-20 02:53 G	33554000.48	33554000.62	33554000.77	0.1928	0.0797
Mercury	87162-03-28 00:29 G	33556412.40	33556412.52	33556412.63	0.1601	0.0393
Mercury	87164-03-02 02:53 G	33557117.53	33557117.62	33557117.70	0.1610	0.1079
Mercury	87165-01-08 20:10 G	33557430.18	33557430.34	33557430.50	0.1932	0.0418
Earth	87165-04-14 14:10 G	33557525.91	33557526.09	33557526.28	0.1805	0.0393
Moon	87165-04-14 22:05 G	33557526.24	33557526.42	33557526.61	0.1804	0.0382 *
Venus	87169-10-05 03:51 G	33559160.61	33559160.66	33559160.71	0.1601	0.1528
Mercury	87171-08-18 12:00 G	33559842.90	33559843.00	33559843.11	0.1599	0.0739
Mercury	87173-07-23 14:10 G	33560547.98	33560548.09	33560548.20	0.1608	0.0714
Mercury	87174-05-31 12:44 G	33560859.95	33560860.03	33560860.12	0.1935	0.1667
Mercury	87181-01-07 23:46 G	33563273.40	33563273.49	33563273.57	0.1597	0.1080
Mercury	87182-12-14 01:27 G	33563978.45	33563978.56	33563978.68	0.1605	0.0353
Mercury	87190-05-31 11:32 G	33566703.93	33566703.98	33566704.03	0.1596	0.1415
Mercury	87192-05-05 12:58 G	33567408.92	33567409.04	33567409.16	0.1603	0.0022
Mercury	87194-04-10 15:36 G	33568114.11	33568114.15	33568114.20	0.1613	0.1489
Mercury	87195-02-18 03:51 G	33568427.52	33568427.66	33568427.81	0.1928	0.0881
Mercury	87201-09-26 00:29 G	33570839.41	33570839.52	33570839.63	0.1601	0.0358
Venus	87201-10-03 21:22 G	33570847.22	33570847.39	33570847.56	0.1605	0.0301
Mercury	87203-09-01 02:53 G	33571544.53	33571544.62	33571544.70	0.1611	0.1116
Venus	87204-07-09 12:58 G	33571856.91	33571857.04	33571857.17	0.1932	0.1288
Mercury	87204-07-09 21:08 G	33571857.21	33571857.38	33571857.54	0.1932	0.0341
Mercury	87211-02-16 12:00 G	33574269.89	33574270.00	33574270.10	0.1599	0.0708

Mercury	87213-01-21 14:10 G	33574974.98	33574975.09	33574975.19	0.1608	0.0747
Mercury	87213-11-29 13:12 G	33575286.96	33575287.05	33575287.14	0.1935	0.1605
Mercury	87220-07-08 23:46 G	33577700.40	33577700.49	33577700.57	0.1598	0.1046
Mercury	87222-06-14 01:27 G	33578405.45	33578405.56	33578405.68	0.1605	0.0382
Mercury	87229-11-29 11:32 G	33581130.92	33581130.98	33581131.03	0.1596	0.1385
Mercury	87231-11-04 12:58 G	33581835.92	33581836.04	33581836.16	0.1603	0.0039
Mercury	87233-10-09 15:36 G	33582541.12	33582541.15	33582541.19	0.1613	0.1522
Mercury	87234-08-19 05:03 G	33582854.57	33582854.71	33582854.85	0.1928	0.0970
Mercury	87241-03-27 00:29 G	33585266.40	33585266.52	33585266.63	0.1601	0.0327
Mercury	87243-03-02 02:53 G	33585971.54	33585971.62	33585971.70	0.1611	0.1150
Mercury	87244-01-08 21:51 G	33586284.24	33586284.41	33586284.57	0.1932	0.0265
Mercury	87250-08-17 12:00 G	33588696.90	33588697.00	33588697.11	0.1599	0.0671
Mercury	87252-07-22 14:10 G	33589401.99	33589402.09	33589402.19	0.1608	0.0781
Mercury	87253-05-30 14:24 G	33589714.00	33589714.10	33589714.21	0.1935	0.1507
Mercury	87260-01-07 23:32 G	33592127.40	33592127.48	33592127.57	0.1597	0.1017
Mercury	87261-12-13 01:27 G	33592832.45	33592832.56	33592832.68	0.1605	0.0418
Venus	87267-08-01 09:51 G	33594889.73	33594889.91	33594890.08	0.1604	0.0136
Mercury	87269-05-30 11:17 G	33595557.91	33595557.97	33595558.03	0.1596	0.1353
Moon	87269-10-16 05:03 G	33595696.52	33595696.71	33595696.89	0.1729	0.0747
Earth	87269-10-16 11:32 G	33595696.81	33595696.98	33595697.15	0.1729	0.0808 *
Mercury	87271-05-05 12:58 G	33596262.92	33596263.04	33596263.15	0.1603	0.0080
Mercury	87273-04-09 15:36 G	33596968.13	33596968.15	33596968.18	0.1613	0.1557
Mercury	87274-02-17 05:17 G	33597281.58	33597281.72	33597281.86	0.1928	0.1025
Mercury	87280-09-25 00:29 G	33599693.40	33599693.52	33599693.63	0.1601	0.0294
Mercury	87282-08-31 02:53 G	33600398.54	33600398.62	33600398.70	0.1610	0.1180
Mercury	87283-07-09 22:48 G	33600711.29	33600711.45	33600711.61	0.1932	0.0171
Mercury	87290-02-15 12:00 G	33603123.89	33603124.00	33603124.11	0.1599	0.0639
Mercury	87292-01-21 14:10 G	33603828.99	33603829.09	33603829.19	0.1608	0.0815
Mercury	87292-11-28 15:22 G	33604141.03	33604141.14	33604141.25	0.1935	0.1425
Mercury	87299-07-08 23:32 G	33606554.39	33606554.48	33606554.58	0.1597	0.0982

Mercury	87301-06-14 01:27 G	33607259.45	33607259.56	33607259.67	0.1605	0.0451
Mercury	87308-11-29 11:17 G	33609984.91	33609984.97	33609985.04	0.1596	0.1319
Mercury	87310-11-04 12:58 G	33610689.92	33610690.04	33610690.15	0.1603	0.0105
Mercury	87312-10-09 15:36 G	33611395.14	33611395.15	33611395.17	0.1613	0.1591
Mercury	87313-08-19 06:29 G	33611708.63	33611708.77	33611708.90	0.1928	0.1115
Mercury	87320-03-27 00:29 G	33614120.40	33614120.52	33614120.63	0.1601	0.0262
Mercury	87322-03-02 02:53 G	33614825.54	33614825.62	33614825.70	0.1610	0.1216
Mercury	87323-01-08 23:32 G	33615138.31	33615138.48	33615138.64	0.1932	0.0113
Mercury	87329-08-17 12:00 G	33617550.89	33617551.00	33617551.11	0.1599	0.0610
Mercury	87331-07-23 14:10 G	33618255.99	33618256.09	33618256.19	0.1608	0.0847
Mercury	87332-05-30 16:05 G	33618568.05	33618568.17	33618568.28	0.1935	0.1353
Venus	87333-05-29 22:05 G	33618932.25	33618932.42	33618932.60	0.1602	0.0046
Mercury	87339-01-07 23:32 G	33620981.39	33620981.48	33620981.58	0.1597	0.0949
Mercury	87340-12-13 01:27 G	33621686.44	33621686.56	33621686.67	0.1605	0.0483
Mercury	87348-05-30 11:17 G	33624411.91	33624411.97	33624412.04	0.1596	0.1286
Mercury	87350-05-05 12:58 G	33625116.92	33625117.04	33625117.15	0.1603	0.0137
Mercury	87353-02-17 07:12 G	33626135.68	33626135.80	33626135.93	0.1928	0.1198
Mercury	87359-09-26 00:29 G	33628547.40	33628547.52	33628547.63	0.1601	0.0231
Mercury	87361-08-31 02:53 G	33629252.55	33629252.62	33629252.69	0.1610	0.1251
Mercury	87362-07-10 00:15 G	33629565.35	33629565.51	33629565.68	0.1932	0.0046
Venus	87368-03-03 17:32 G	33631629.11	33631629.23	33631629.36	0.1930	0.1279
Mercury	87369-02-15 12:00 G	33631977.89	33631978.00	33631978.11	0.1599	0.0573
Mercury	87371-01-21 14:10 G	33632682.99	33632683.09	33632683.19	0.1608	0.0881
Mercury	87371-11-29 17:03 G	33632995.08	33632995.21	33632995.33	0.1935	0.1265
Mercury	87378-07-08 23:32 G	33635408.39	33635408.48	33635408.58	0.1597	0.0917
Mercury	87380-06-13 01:27 G	33636113.45	33636113.56	33636113.67	0.1605	0.0518
Mercury	87387-11-29 11:17 G	33638838.90	33638838.97	33638839.04	0.1596	0.1255
Mercury	87389-11-03 12:44 G	33639543.92	33639544.03	33639544.15	0.1603	0.0166
Mercury	87392-08-18 07:41 G	33640562.70	33640562.82	33640562.95	0.1928	0.1259
Mercury	87397-04-20 23:03 G	33642269.45	33642269.46	33642269.47	0.1595	0.1587

Mercury	87399-03-27 00:15 G	33642974.40	33642974.51	33642974.63	0.1601	0.0202
Venus	87399-03-27 10:05 G	33642974.75	33642974.92	33642975.10	0.1601	0.0209
Mercury	87401-03-02 02:53 G	33643679.55	33643679.62	33643679.69	0.1610	0.1280
Mercury	87402-01-09 01:12 G	33643992.39	33643992.55	33643992.72	0.1932	0.0065
Mercury	87408-08-17 12:00 G	33646404.89	33646405.00	33646405.11	0.1599	0.0542
Mercury	87410-07-23 14:10 G	33647109.99	33647110.09	33647110.19	0.1608	0.0916
Mercury	87411-05-31 18:00 G	33647422.12	33647422.25	33647422.38	0.1935	0.1176
Mercury	87418-01-07 23:32 G	33649835.38	33649835.48	33649835.58	0.1597	0.0883
Mercury	87419-12-14 01:27 G	33650540.45	33650540.56	33650540.67	0.1605	0.0551
Mercury	87427-05-31 11:17 G	33653265.90	33653265.97	33653266.04	0.1596	0.1220
Mercury	87429-05-05 12:44 G	33653970.92	33653971.03	33653971.15	0.1603	0.0202
Mercury	87432-02-18 08:39 G	33654989.75	33654989.86	33654989.98	0.1928	0.1341
Venus	87433-12-30 20:39 G	33655671.19	33655671.36	33655671.52	0.1932	0.0589
Mercury	87436-10-20 23:03 G	33656696.44	33656696.46	33656696.48	0.1594	0.1558
Mercury	87438-09-26 00:15 G	33657401.40	33657401.51	33657401.63	0.1601	0.0172
Mercury	87440-08-31 02:53 G	33658106.55	33658106.62	33658106.69	0.1610	0.1317
Mercury	87441-07-10 01:56 G	33658419.42	33658419.58	33658419.75	0.1932	0.0142
Mercury	87448-02-16 11:46 G	33660831.88	33660831.99	33660832.10	0.1599	0.0513
Moon	87449-04-16 19:56 G	33661257.14	33661257.33	33661257.52	0.1814	0.0668
Earth	87449-04-16 21:51 G	33661257.23	33661257.41	33661257.60	0.1814	0.0380 *
Mercury	87450-01-21 14:10 G	33661536.99	33661537.09	33661537.18	0.1608	0.0947
Mercury	87450-11-29 18:29 G	33661849.14	33661849.27	33661849.41	0.1936	0.1112
Mercury	87457-07-08 23:32 G	33664262.38	33664262.48	33664262.58	0.1597	0.0850
Mercury	87459-06-14 01:27 G	33664967.45	33664967.56	33664967.67	0.1605	0.0584
Venus	87465-01-22 22:48 G	33667017.28	33667017.45	33667017.63	0.1600	0.0363
Mercury	87466-11-29 11:17 G	33667692.89	33667692.97	33667693.04	0.1596	0.1190
Mercury	87468-11-03 12:44 G	33668397.92	33668398.03	33668398.15	0.1603	0.0235
Mercury	87471-08-19 09:36 G	33669416.80	33669416.90	33669417.01	0.1928	0.1427
Earth	87474-10-16 10:05 G	33670570.86	33670570.92	33670570.98	0.1716	0.1613
Moon	87474-10-16 15:51 G	33670571.10	33670571.16	33670571.22	0.1716	0.1615

Mercury	87476-04-20 23:03 G	33671123.43	33671123.46	33671123.49	0.1594	0.1522
Mercury	87478-03-27 00:15 G	33671828.40	33671828.51	33671828.63	0.1601	0.0134
Mercury	87480-03-01 02:53 G	33672533.56	33672533.62	33672533.68	0.1610	0.1350
Mercury	87481-01-08 02:39 G	33672846.45	33672846.61	33672846.78	0.1932	0.0220
Mercury	87487-08-17 12:00 G	33675258.88	33675259.00	33675259.11	0.1599	0.0478
Mercury	87489-07-22 14:10 G	33675963.99	33675964.09	33675964.18	0.1608	0.0981
Mercury	87490-05-30 19:41 G	33676276.18	33676276.32	33676276.46	0.1935	0.1017
Mercury	87497-01-06 23:32 G	33678689.38	33678689.48	33678689.58	0.1597	0.0820
Venus	87497-01-21 16:05 G	33678704.11	33678704.17	33678704.24	0.1603	0.1466
Mercury	87498-12-13 01:27 G	33679394.45	33679394.56	33679394.67	0.1605	0.0617
Venus	87499-10-27 23:03 G	33679713.29	33679713.46	33679713.63	0.1934	0.0120
Mercury	87506-05-31 11:17 G	33682119.89	33682119.97	33682120.05	0.1596	0.1158
Mercury	87508-05-05 12:44 G	33682824.91	33682825.03	33682825.15	0.1603	0.0256
Mercury	87511-02-18 10:05 G	33683843.82	33683843.92	33683844.02	0.1928	0.1481
Mercury	87515-10-21 22:48 G	33685550.42	33685550.45	33685550.49	0.1594	0.1492
Mercury	87517-09-26 00:15 G	33686255.40	33686255.51	33686255.63	0.1601	0.0103
Mercury	87519-09-01 02:53 G	33686960.56	33686960.62	33686960.68	0.1610	0.1380
Mercury	87520-07-10 03:51 G	33687273.50	33687273.66	33687273.82	0.1932	0.0306
Mercury	87527-02-16 11:46 G	33689685.88	33689685.99	33689686.11	0.1599	0.0445
Mercury	87529-01-21 14:10 G	33690391.00	33690391.09	33690391.18	0.1608	0.1015
Mercury	87529-11-29 20:24 G	33690703.21	33690703.35	33690703.49	0.1935	0.0939
Venus	87530-11-21 11:03 G	33691059.79	33691059.96	33691060.12	0.1599	0.0529
Mercury	87536-07-08 23:32 G	33693116.38	33693116.48	33693116.58	0.1597	0.0785
Mercury	87538-06-14 01:27 G	33693821.45	33693821.56	33693821.67	0.1605	0.0651
Mercury	87545-11-29 11:17 G	33696546.88	33696546.97	33696547.05	0.1596	0.1125
Mercury	87547-11-04 12:44 G	33697251.92	33697252.03	33697252.15	0.1603	0.0297
Mercury	87550-08-19 11:17 G	33698270.87	33698270.97	33698271.06	0.1928	0.1570
Moon	87553-10-19 21:22 G	33699428.26	33699428.39	33699428.53	0.1721	0.1159
Earth	87553-10-20 00:00 G	33699428.36	33699428.50	33699428.65	0.1722	0.1151 *
Mercury	87555-04-21 22:48 G	33699977.41	33699977.45	33699977.50	0.1594	0.1461

Mercury	87557-03-27 00:15 G	33700682.39	33700682.51	33700682.63	0.1601	0.0065
Mercury	87559-03-02 02:53 G	33701387.56	33701387.62	33701387.67	0.1610	0.1416
Mercury	87560-01-09 04:20 G	33701700.52	33701700.68	33701700.84	0.1932	0.0369
Venus	87562-11-20 04:34 G	33702746.59	33702746.69	33702746.79	0.1602	0.1298
Venus	87565-08-25 02:10 G	33703755.43	33703755.59	33703755.74	0.1936	0.0810
Mercury	87566-08-17 11:46 G	33704112.88	33704112.99	33704113.10	0.1599	0.0413
Mercury	87568-07-22 14:10 G	33704818.00	33704818.09	33704818.18	0.1608	0.1046
Mercury	87569-05-30 21:08 G	33705130.23	33705130.38	33705130.53	0.1936	0.0866
Mercury	87576-01-07 23:32 G	33707543.37	33707543.48	33707543.58	0.1597	0.0753
Mercury	87577-12-13 01:12 G	33708248.45	33708248.55	33708248.66	0.1605	0.0684
Mercury	87585-05-30 11:03 G	33710973.88	33710973.96	33710974.05	0.1596	0.1094
Mercury	87587-05-05 12:44 G	33711678.92	33711679.03	33711679.15	0.1603	0.0326
Mercury	87590-02-17 12:00 G	33712697.92	33712698.00	33712698.08	0.1928	0.1647
Mercury	87594-10-20 22:48 G	33714404.40	33714404.45	33714404.50	0.1594	0.1426
Venus	87596-09-17 23:46 G	33715102.33	33715102.49	33715102.65	0.1598	0.0681
Mercury	87596-09-25 00:15 G	33715109.39	33715109.51	33715109.63	0.1601	0.0034
Mercury	87598-08-31 02:53 G	33715814.57	33715814.62	33715814.67	0.1610	0.1449
Mercury	87599-07-10 05:17 G	33716127.56	33716127.72	33716127.88	0.1932	0.0454
Mercury	87606-02-15 11:46 G	33718539.88	33718539.99	33718540.11	0.1599	0.0377
Mercury	87608-01-21 14:10 G	33719245.00	33719245.09	33719245.17	0.1608	0.1081
Mercury	87608-11-28 22:05 G	33719557.27	33719557.42	33719557.57	0.1935	0.0781
Mercury	87615-07-08 23:32 G	33721970.37	33721970.48	33721970.58	0.1597	0.0725
Mercury	87617-06-13 01:27 G	33722675.45	33722675.56	33722675.66	0.1605	0.0717
Mercury	87624-11-28 11:03 G	33725400.88	33725400.96	33725401.05	0.1596	0.1061
Mercury	87626-11-03 12:44 G	33726105.91	33726106.03	33726106.15	0.1603	0.0354
Venus	87628-09-16 16:48 G	33726789.08	33726789.20	33726789.33	0.1601	0.1133
Mercury	87629-08-18 12:29 G	33727124.95	33727125.02	33727125.09	0.1928	0.1708
Venus	87631-06-22 04:34 G	33727797.59	33727797.69	33727797.80	0.1937	0.1524
Mercury	87634-04-20 22:48 G	33728831.40	33728831.45	33728831.51	0.1594	0.1395
Mercury	87636-03-26 00:15 G	33729536.39	33729536.51	33729536.63	0.1601	0.0010

Mercury	87638-03-01 02:53 G	33730241.57	33730241.62	33730241.66	0.1610	0.1479
Mercury	87639-01-08 06:15 G	33730554.60	33730554.76	33730554.92	0.1932	0.0535
Mercury	87645-08-16 11:46 G	33732966.88	33732966.99	33732967.11	0.1599	0.0346
Mercury	87647-07-22 14:10 G	33733672.00	33733672.09	33733672.17	0.1608	0.1114
Mercury	87648-05-29 23:03 G	33733984.30	33733984.46	33733984.61	0.1935	0.0697
Mercury	87655-01-06 23:32 G	33736397.37	33736397.48	33736397.58	0.1597	0.0691
Mercury	87656-12-12 01:27 G	33737102.45	33737102.56	33737102.66	0.1605	0.0750
Venus	87662-07-16 12:15 G	33739144.86	33739145.01	33739145.16	0.1597	0.0840
Mercury	87664-05-29 11:03 G	33739827.87	33739827.96	33739828.05	0.1595	0.1028
Mercury	87666-05-04 12:44 G	33740532.92	33740533.03	33740533.15	0.1603	0.0390
Mercury	87669-02-16 13:27 G	33741552.00	33741552.06	33741552.12	0.1928	0.1789
Mercury	87673-10-19 22:48 G	33743258.39	33743258.45	33743258.50	0.1594	0.1366
Mercury	87675-09-25 00:15 G	33743963.39	33743963.51	33743963.63	0.1600	0.0036
Mercury	87677-08-30 02:53 G	33744668.58	33744668.62	33744668.66	0.1610	0.1516
Mercury	87678-07-09 06:44 G	33744981.63	33744981.78	33744981.94	0.1932	0.0607
Mercury	87685-02-14 11:46 G	33747393.87	33747393.99	33747394.10	0.1599	0.0318
Mercury	87687-01-20 13:56 G	33748099.00	33748099.08	33748099.17	0.1607	0.1144
Mercury	87687-11-28 23:32 G	33748411.33	33748411.48	33748411.64	0.1936	0.0631
Mercury	87694-07-07 23:17 G	33750824.37	33750824.47	33750824.58	0.1597	0.0659
Venus	87694-07-15 05:32 G	33750831.59	33750831.73	33750831.87	0.1600	0.0968
Mercury	87696-06-12 01:12 G	33751529.45	33751529.55	33751529.66	0.1605	0.0781
Mercury	87697-04-19 16:20 G	33751841.14	33751841.18	33751841.21	0.1938	0.1877
Mercury	87703-11-29 11:03 G	33754254.87	33754254.96	33754255.05	0.1595	0.0997
Mercury	87705-11-03 12:44 G	33754959.92	33754960.03	33754960.15	0.1603	0.0423
Mercury	87708-08-18 14:24 G	33755979.06	33755979.10	33755979.13	0.1928	0.1871
Mercury	87713-04-20 22:48 G	33757685.39	33757685.45	33757685.51	0.1594	0.1330
Mercury	87715-03-27 00:15 G	33758390.39	33758390.51	33758390.63	0.1600	0.0072
Mercury	87717-03-01 02:53 G	33759095.59	33759095.62	33759095.65	0.1610	0.1548
Mercury	87718-01-08 07:41 G	33759408.66	33759408.82	33759408.97	0.1932	0.0682
Mercury	87724-08-16 11:46 G	33761820.87	33761820.99	33761821.10	0.1599	0.0281

Mercury	87726-07-22 14:10 G	33762526.01	33762526.09	33762526.17	0.1607	0.1180
Mercury	87727-05-31 00:44 G	33762838.37	33762838.53	33762838.69	0.1935	0.0539
Venus	87728-05-14 00:44 G	33763187.39	33763187.53	33763187.67	0.1596	0.0999
Venus	87729-04-19 07:12 G	33763527.74	33763527.80	33763527.86	0.1934	0.1793
Moon	87733-04-18 22:20 G	33764988.27	33764988.43	33764988.58	0.1823	0.0908
Earth	87733-04-19 02:53 G	33764988.44	33764988.62	33764988.80	0.1823	0.0488 *
Mercury	87734-01-06 23:17 G	33765251.36	33765251.47	33765251.58	0.1597	0.0628
Mercury	87735-12-13 01:12 G	33765956.45	33765956.55	33765956.66	0.1605	0.0815
Mercury	87736-10-19 16:34 G	33766268.14	33766268.19	33766268.25	0.1938	0.1820
Mercury	87743-05-30 11:03 G	33768681.87	33768681.96	33768682.05	0.1595	0.0965
Mercury	87745-05-04 12:44 G	33769386.91	33769387.03	33769387.14	0.1602	0.0452
Mercury	87748-02-17 14:39 G	33770406.11	33770406.11	33770406.12	0.1928	0.1926
Mercury	87752-10-19 22:48 G	33772112.38	33772112.45	33772112.51	0.1594	0.1300
Mercury	87754-09-25 00:15 G	33772817.39	33772817.51	33772817.62	0.1601	0.0108
Mercury	87756-08-30 02:53 G	33773522.60	33773522.62	33773522.64	0.1610	0.1578
Mercury	87757-07-09 08:39 G	33773835.71	33773835.86	33773836.01	0.1932	0.0772
Earth	87758-10-18 23:17 G	33774302.34	33774302.47	33774302.61	0.1708	0.1207
Moon	87758-10-18 23:46 G	33774302.34	33774302.49	33774302.64	0.1708	0.1183 *
Venus	87760-05-12 17:46 G	33774874.09	33774874.24	33774874.39	0.1599	0.0801
Mercury	87764-02-15 11:46 G	33776247.87	33776247.99	33776248.10	0.1599	0.0252
Mercury	87766-01-20 13:56 G	33776953.01	33776953.08	33776953.16	0.1608	0.1212
Mercury	87766-11-29 01:27 G	33777265.40	33777265.56	33777265.72	0.1935	0.0468
Mercury	87773-07-07 23:17 G	33779678.36	33779678.47	33779678.58	0.1597	0.0593
Mercury	87775-06-13 01:12 G	33780383.45	33780383.55	33780383.65	0.1605	0.0848
Mercury	87776-04-19 17:46 G	33780695.17	33780695.24	33780695.31	0.1939	0.1725
Mercury	87782-11-28 11:03 G	33783108.86	33783108.96	33783109.05	0.1595	0.0933
Mercury	87784-11-02 12:44 G	33783813.92	33783814.03	33783814.14	0.1603	0.0487
Mercury	87792-04-19 22:34 G	33786539.37	33786539.44	33786539.51	0.1594	0.1271
Venus	87794-03-11 12:58 G	33787229.93	33787230.04	33787230.16	0.1595	0.1160
Mercury	87794-03-26 00:15 G	33787244.39	33787244.51	33787244.62	0.1600	0.0142

Venus	87795-02-14 09:08 G	33787569.74	33787569.88	33787570.03	0.1936	0.1053
Mercury	87797-01-07 09:08 G	33788262.73	33788262.88	33788263.03	0.1932	0.0827
Mercury	87803-08-17 11:32 G	33790674.87	33790674.98	33790675.10	0.1598	0.0225
Mercury	87805-07-22 13:56 G	33791380.01	33791380.08	33791380.16	0.1607	0.1242
Mercury	87806-05-31 02:10 G	33791692.43	33791692.59	33791692.75	0.1936	0.0389
Mercury	87813-01-06 23:17 G	33794105.36	33794105.47	33794105.58	0.1597	0.0561
Mercury	87814-12-13 01:12 G	33794810.45	33794810.55	33794810.65	0.1605	0.0877
Mercury	87815-10-20 18:44 G	33795122.19	33795122.28	33795122.37	0.1938	0.1639
Mercury	87822-05-30 11:03 G	33797535.86	33797535.96	33797536.05	0.1595	0.0904
Mercury	87824-05-04 12:44 G	33798240.92	33798241.03	33798241.14	0.1603	0.0519
Venus	87826-03-11 06:00 G	33798916.59	33798916.75	33798916.91	0.1598	0.0632
Mercury	87831-10-20 22:34 G	33800966.37	33800966.44	33800966.52	0.1594	0.1237
Mercury	87833-09-25 00:00 G	33801671.39	33801671.50	33801671.62	0.1600	0.0176
Mercury	87836-07-09 10:05 G	33802689.78	33802689.92	33802690.07	0.1932	0.0913
Earth	87837-10-22 12:58 G	33803159.95	33803160.04	33803160.13	0.1714	0.1501
Moon	87837-10-22 20:10 G	33803160.29	33803160.34	33803160.40	0.1714	0.1640
Mercury	87841-03-12 10:20 G	33804396.92	33804396.93	33804396.95	0.1593	0.1570
Mercury	87843-02-15 11:46 G	33805101.87	33805101.99	33805102.10	0.1598	0.0192
Mercury	87845-01-20 13:56 G	33805807.01	33805807.08	33805807.15	0.1607	0.1277
Mercury	87845-11-29 03:08 G	33806119.46	33806119.63	33806119.79	0.1936	0.0312
Mercury	87852-07-07 23:17 G	33808532.36	33808532.47	33808532.58	0.1597	0.0532
Mercury	87854-06-13 01:12 G	33809237.46	33809237.55	33809237.65	0.1605	0.0911
Mercury	87855-04-20 19:12 G	33809549.20	33809549.30	33809549.39	0.1939	0.1576
Venus	87860-01-08 01:56 G	33811272.48	33811272.58	33811272.67	0.1594	0.1315
Venus	87860-12-12 12:00 G	33811611.83	33811612.00	33811612.17	0.1938	0.0346
Mercury	87861-11-28 10:48 G	33811962.86	33811962.95	33811963.05	0.1595	0.0871
Mercury	87863-11-03 12:44 G	33812667.91	33812668.03	33812668.14	0.1602	0.0550
Mercury	87871-04-20 22:34 G	33815393.37	33815393.44	33815393.52	0.1594	0.1205
Mercury	87873-03-26 00:00 G	33816098.39	33816098.50	33816098.62	0.1600	0.0203
Mercury	87876-01-08 11:03 G	33817116.82	33817116.96	33817117.10	0.1932	0.0993

Mercury	87880-09-10 10:20 G	33818823.91	33818823.93	33818823.96	0.1593	0.1537
Mercury	87882-08-16 11:32 G	33819528.87	33819528.98	33819529.10	0.1598	0.0163
Mercury	87884-07-21 13:56 G	33820234.02	33820234.08	33820234.15	0.1607	0.1310
Mercury	87885-05-30 03:51 G	33820546.50	33820546.66	33820546.82	0.1936	0.0228
Venus	87892-01-06 18:44 G	33822959.11	33822959.28	33822959.45	0.1597	0.0477
Mercury	87892-01-06 23:17 G	33822959.36	33822959.47	33822959.58	0.1597	0.0498 *
Mercury	87893-12-12 01:12 G	33823664.46	33823664.55	33823664.65	0.1605	0.0943
Mercury	87894-10-19 20:10 G	33823976.24	33823976.34	33823976.45	0.1939	0.1489
Mercury	87901-05-30 10:48 G	33826389.85	33826389.95	33826390.05	0.1595	0.0839
Mercury	87903-05-05 12:44 G	33827094.92	33827095.03	33827095.14	0.1602	0.0585
Mercury	87910-10-20 22:34 G	33829820.36	33829820.44	33829820.52	0.1594	0.1176
Mercury	87912-09-25 00:00 G	33830525.39	33830525.50	33830525.62	0.1600	0.0231
Mercury	87915-07-10 11:32 G	33831543.85	33831543.98	33831544.12	0.1932	0.1057
Mercury	87920-03-12 10:20 G	33833250.90	33833250.93	33833250.97	0.1593	0.1505
Mercury	87922-02-15 11:32 G	33833955.86	33833955.98	33833956.10	0.1598	0.0124
Mercury	87924-01-21 13:56 G	33834661.02	33834661.08	33834661.15	0.1607	0.1338
Mercury	87924-11-29 04:34 G	33834973.52	33834973.69	33834973.85	0.1936	0.0160
Venus	87925-11-05 14:10 G	33835315.03	33835315.09	33835315.16	0.1593	0.1473
Venus	87926-10-10 14:10 G	33835653.92	33835654.09	33835654.26	0.1939	0.0384
Mercury	87931-07-08 23:17 G	33837386.36	33837386.47	33837386.58	0.1597	0.0466
Mercury	87933-06-13 01:12 G	33838091.46	33838091.55	33838091.64	0.1605	0.0974
Mercury	87934-04-20 21:22 G	33838403.27	33838403.39	33838403.50	0.1939	0.1397
Mercury	87940-11-28 10:48 G	33840816.85	33840816.95	33840817.05	0.1595	0.0807
Mercury	87942-11-03 12:44 G	33841521.92	33841522.03	33841522.14	0.1602	0.0616
Mercury	87950-04-20 22:34 G	33844247.36	33844247.44	33844247.52	0.1594	0.1141
Mercury	87952-03-26 00:00 G	33844952.38	33844952.50	33844952.62	0.1600	0.0260
Mercury	87955-01-08 12:29 G	33845970.89	33845971.02	33845971.15	0.1932	0.1134
Venus	87957-11-04 06:44 G	33847001.61	33847001.78	33847001.95	0.1596	0.0309
Mercury	87959-09-11 10:20 G	33847677.89	33847677.93	33847677.97	0.1593	0.1475
Mercury	87961-08-16 11:32 G	33848382.87	33848382.98	33848383.10	0.1598	0.0098

Mercury	87963-07-22 13:56 G	33849088.02	33849088.08	33849088.14	0.1607	0.1373
Mercury	87964-05-30 05:32 G	33849400.57	33849400.73	33849400.90	0.1936	0.0074
Mercury	87971-01-06 23:03 G	33851813.35	33851813.46	33851813.58	0.1597	0.0440
Mercury	87972-12-12 01:12 G	33852518.46	33852518.55	33852518.64	0.1605	0.1008
Mercury	87973-10-19 21:36 G	33852830.28	33852830.40	33852830.52	0.1939	0.1342
Mercury	87980-05-29 10:48 G	33855243.85	33855243.95	33855244.05	0.1595	0.0775
Mercury	87982-05-04 12:29 G	33855948.91	33855949.02	33855949.13	0.1602	0.0645
Mercury	87989-10-19 22:34 G	33858674.36	33858674.44	33858674.52	0.1594	0.1111
Mercury	87991-09-25 00:00 G	33859379.39	33859379.50	33859379.62	0.1600	0.0294
Venus	87992-08-06 17:03 G	33859696.07	33859696.21	33859696.35	0.1940	0.1090
Mercury	87994-07-09 13:27 G	33860397.94	33860398.06	33860398.19	0.1932	0.1221
Mercury	87999-03-12 10:20 G	33862104.88	33862104.93	33862104.98	0.1593	0.1443
Mercury	88001-02-14 11:32 G	33862809.86	33862809.98	33862810.10	0.1598	0.0059

89TH MILLENNIUM CE

This is a list of transits visible from Mars in the 89th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	88003-01-20 13:56 G	33863515.03	33863515.08	33863515.14	0.1607	0.1406		
Mercury	88003-11-29 06:15 G	33863827.59	33863827.76	33863827.92	0.1936	0.0028		
Mercury	88010-07-07 23:17 G	33866240.35	33866240.47	33866240.58	0.1597	0.0406		
Mercury	88012-06-12 01:12 G	33866945.46	33866945.55	33866945.64	0.1605	0.1039		
Mercury	88013-04-19 22:48 G	33867257.32	33867257.45	33867257.58	0.1939	0.1248		
Earth	88017-04-21 05:32 G	33868719.55	33868719.73	33868719.90	0.1832	0.0719		

Moon	88017-04-21 12:58 G	33868719.88	33868720.04	33868720.21	0.1832	0.0802 *
Mercury	88019-11-28 10:48 G	33869670.84	33869670.95	33869671.05	0.1595	0.0745
Mercury	88021-11-02 12:44 G	33870375.92	33870376.03	33870376.13	0.1602	0.0682
Venus	88023-09-01 19:27 G	33871044.14	33871044.31	33871044.49	0.1595	0.0156
Mercury	88029-04-19 22:20 G	33873101.35	33873101.43	33873101.52	0.1594	0.1084
Mercury	88031-03-26 00:00 G	33873806.38	33873806.50	33873806.61	0.1600	0.0323
Mercury	88034-01-07 13:56 G	33874824.95	33874825.08	33874825.20	0.1932	0.1275
Mercury	88038-09-10 10:20 G	33876531.88	33876531.93	33876531.98	0.1593	0.1411
Mercury	88040-08-15 11:32 G	33877236.86	33877236.98	33877237.10	0.1598	0.0031
Mercury	88042-07-21 13:56 G	33877942.03	33877942.08	33877942.13	0.1607	0.1435
Moon	88042-10-21 06:29 G	33878033.61	33878033.77	33878033.93	0.1700	0.0856
Earth	88042-10-21 13:56 G	33878033.91	33878034.08	33878034.25	0.1701	0.0772 *
Mercury	88043-05-30 06:58 G	33878254.63	33878254.79	33878254.96	0.1936	0.0091
Mercury	88050-01-05 23:03 G	33880667.35	33880667.46	33880667.58	0.1597	0.0373
Mercury	88051-12-12 01:12 G	33881372.46	33881372.55	33881372.64	0.1605	0.1071
Mercury	88052-10-18 23:46 G	33881684.36	33881684.49	33881684.62	0.1939	0.1165
Venus	88058-06-03 18:58 G	33883738.23	33883738.29	33883738.35	0.1942	0.1824
Mercury	88059-05-29 10:48 G	33884097.84	33884097.95	33884098.05	0.1595	0.0714
Mercury	88061-05-03 12:29 G	33884802.92	33884803.02	33884803.13	0.1602	0.0712
Mercury	88068-10-18 22:34 G	33887528.35	33887528.44	33887528.52	0.1594	0.1049
Mercury	88070-09-24 00:00 G	33888233.38	33888233.50	33888233.61	0.1600	0.0356
Mercury	88073-07-08 14:53 G	33889252.00	33889252.12	33889252.23	0.1932	0.1360
Mercury	88078-03-11 10:05 G	33890958.87	33890958.92	33890958.98	0.1592	0.1384
Mercury	88080-02-14 11:32 G	33891663.86	33891663.98	33891664.10	0.1598	0.0009
Mercury	88082-01-19 13:56 G	33892369.03	33892369.08	33892369.13	0.1607	0.1469
Mercury	88082-11-28 07:56 G	33892681.66	33892681.83	33892681.99	0.1936	0.0155
Venus	88089-06-29 07:56 G	33895086.66	33895086.83	33895087.01	0.1594	0.0027
Mercury	88089-07-06 23:03 G	33895094.35	33895094.46	33895094.58	0.1596	0.0343
Mercury	88091-06-12 01:12 G	33895799.47	33895799.55	33895799.64	0.1605	0.1103
Mercury	88092-04-19 00:15 G	33896111.37	33896111.51	33896111.64	0.1939	0.1105

Mercury	88098-11-27 10:34 G	33898524.84	33898524.94	33898525.05	0.1595	0.0683
Mercury	88100-11-02 12:29 G	33899229.92	33899230.02	33899230.13	0.1602	0.0740
Mercury	88108-04-19 22:20 G	33901955.34	33901955.43	33901955.52	0.1594	0.1019
Mercury	88110-03-26 00:00 G	33902660.38	33902660.50	33902660.61	0.1600	0.0389
Mercury	88113-01-07 15:51 G	33903679.05	33903679.16	33903679.26	0.1932	0.1439
Mercury	88117-09-10 10:05 G	33905385.86	33905385.92	33905385.98	0.1593	0.1351
Mercury	88119-08-16 11:32 G	33906090.86	33906090.98	33906091.10	0.1598	0.0045
Mercury	88121-07-21 13:56 G	33906796.04	33906796.08	33906796.12	0.1607	0.1503
Moon	88121-10-24 21:22 G	33906891.32	33906891.39	33906891.47	0.1706	0.1587
Mercury	88122-05-30 08:39 G	33907108.70	33907108.86	33907109.02	0.1936	0.0230
Mercury	88129-01-05 23:03 G	33909521.34	33909521.46	33909521.58	0.1596	0.0308
Mercury	88130-12-12 01:12 G	33910226.47	33910226.55	33910226.63	0.1605	0.1135
Mercury	88131-10-20 01:12 G	33910538.41	33910538.55	33910538.69	0.1939	0.1016
Mercury	88138-05-29 10:34 G	33912951.84	33912951.94	33912952.05	0.1595	0.0652
Mercury	88140-05-03 12:29 G	33913656.92	33913657.02	33913657.13	0.1602	0.0776
Mercury	88147-10-19 22:20 G	33916382.34	33916382.43	33916382.52	0.1594	0.0989
Mercury	88149-09-24 00:00 G	33917087.38	33917087.50	33917087.61	0.1600	0.0421
Mercury	88152-07-08 16:05 G	33918106.07	33918106.17	33918106.28	0.1932	0.1499
Venus	88155-04-27 20:24 G	33919129.18	33919129.35	33919129.53	0.1593	0.0167
Venus	88156-03-31 22:05 G	33919468.32	33919468.42	33919468.53	0.1940	0.1522
Mercury	88157-03-11 10:05 G	33919812.86	33919812.92	33919812.99	0.1592	0.1319
Mercury	88159-02-14 11:32 G	33920517.86	33920517.98	33920518.09	0.1598	0.0089
Mercury	88161-01-19 13:56 G	33921223.04	33921223.08	33921223.11	0.1607	0.1531
Mercury	88161-11-28 09:22 G	33921535.73	33921535.89	33921536.05	0.1936	0.0301
Mercury	88168-07-06 23:03 G	33923948.34	33923948.46	33923948.58	0.1597	0.0276
Mercury	88170-06-12 01:12 G	33924653.47	33924653.55	33924653.63	0.1605	0.1167
Mercury	88171-04-20 02:10 G	33924965.45	33924965.59	33924965.74	0.1939	0.0929
Mercury	88177-11-27 10:34 G	33927378.83	33927378.94	33927379.05	0.1595	0.0620
Mercury	88179-11-02 12:29 G	33928083.92	33928084.02	33928084.12	0.1602	0.0807
Mercury	88187-04-19 22:20 G	33930809.34	33930809.43	33930809.52	0.1593	0.0955

Mercury	88189-03-25 00:00 G	33931514.38	33931514.50	33931514.61	0.1600	0.0454
Mercury	88192-01-07 17:03 G	33932533.12	33932533.21	33932533.30	0.1933	0.1574
Mercury	88196-09-09 10:05 G	33934239.85	33934239.92	33934239.99	0.1592	0.1290
Mercury	88198-08-15 11:32 G	33934944.86	33934944.98	33934945.09	0.1598	0.0109
Mercury	88200-07-21 13:56 G	33935650.06	33935650.08	33935650.10	0.1607	0.1566
Mercury	88201-05-30 10:20 G	33935962.77	33935962.93	33935963.09	0.1936	0.0382
Mercury	88208-01-06 23:03 G	33938375.34	33938375.46	33938375.57	0.1596	0.0254
Mercury	88209-12-12 01:12 G	33939080.47	33939080.55	33939080.63	0.1604	0.1199
Mercury	88210-10-20 02:39 G	33939392.46	33939392.61	33939392.75	0.1939	0.0874
Mercury	88217-05-29 10:34 G	33941805.83	33941805.94	33941806.05	0.1595	0.0587
Mercury	88219-05-04 12:29 G	33942510.92	33942511.02	33942511.12	0.1602	0.0835
Venus	88221-02-23 09:08 G	33943171.70	33943171.88	33943172.05	0.1592	0.0322
Venus	88222-01-27 23:46 G	33943510.33	33943510.49	33943510.65	0.1941	0.0766
Mercury	88226-10-19 22:20 G	33945236.33	33945236.43	33945236.52	0.1594	0.0925
Mercury	88228-09-24 00:00 G	33945941.38	33945941.50	33945941.61	0.1600	0.0487
Mercury	88231-07-09 18:15 G	33946960.17	33946960.26	33946960.34	0.1932	0.1662
Mercury	88236-03-11 10:05 G	33948666.85	33948666.92	33948666.99	0.1592	0.1258
Mercury	88238-02-14 11:32 G	33949371.86	33949371.98	33949372.09	0.1598	0.0145
Mercury	88240-01-20 13:56 G	33950077.07	33950077.08	33950077.09	0.1607	0.1598
Mercury	88240-11-28 11:03 G	33950389.80	33950389.96	33950390.12	0.1936	0.0455
Mercury	88245-08-01 21:51 G	33952097.40	33952097.41	33952097.41	0.1591	0.1586
Mercury	88247-07-07 23:03 G	33952802.34	33952802.46	33952802.57	0.1596	0.0218
Mercury	88249-06-12 01:12 G	33953507.47	33953507.55	33953507.62	0.1605	0.1231
Mercury	88250-04-20 03:51 G	33953819.51	33953819.66	33953819.81	0.1939	0.0781
Venus	88253-02-22 01:41 G	33954858.50	33954858.57	33954858.64	0.1595	0.1457
Mercury	88256-11-27 10:34 G	33956232.83	33956232.94	33956233.05	0.1595	0.0557
Mercury	88258-11-02 12:29 G	33956937.92	33956938.02	33956938.12	0.1602	0.0871
Mercury	88266-04-19 22:20 G	33959663.33	33959663.43	33959663.52	0.1593	0.0899
Mercury	88268-03-24 23:46 G	33960368.38	33960368.49	33960368.61	0.1600	0.0514
Mercury	88271-01-07 18:29 G	33961387.19	33961387.27	33961387.34	0.1933	0.1711

Mercury	88275-09-10 10:05 G	33963093.84	33963093.92	33963093.99	0.1592	0.1227
Mercury	88277-08-15 11:17 G	33963798.85	33963798.97	33963799.09	0.1598	0.0166
Mercury	88280-05-29 12:00 G	33964816.84	33964817.00	33964817.15	0.1936	0.0535
Mercury	88285-01-30 21:51 G	33966524.39	33966524.41	33966524.43	0.1591	0.1557
Venus	88286-12-21 21:36 G	33967214.23	33967214.40	33967214.57	0.1592	0.0481
Mercury	88287-01-05 23:03 G	33967229.34	33967229.46	33967229.57	0.1596	0.0193
Venus	88287-11-25 02:24 G	33967552.42	33967552.60	33967552.77	0.1942	0.0065
Mercury	88288-12-11 01:12 G	33967934.48	33967934.55	33967934.62	0.1605	0.1263
Mercury	88289-10-19 04:34 G	33968246.54	33968246.69	33968246.84	0.1939	0.0700
Mercury	88296-05-28 10:34 G	33970659.83	33970659.94	33970660.05	0.1595	0.0526
Mercury	88298-05-03 12:29 G	33971364.92	33971365.02	33971365.12	0.1602	0.0901
Moon	88301-04-24 03:22 G	33972450.49	33972450.64	33972450.80	0.1842	0.1238
Earth	88301-04-24 06:15 G	33972450.60	33972450.76	33972450.92	0.1842	0.1051 *
Mercury	88305-10-19 22:20 G	33974090.33	33974090.43	33974090.53	0.1593	0.0862
Mercury	88307-09-24 23:46 G	33974795.38	33974795.49	33974795.61	0.1600	0.0548
Mercury	88310-07-09 19:27 G	33975814.25	33975814.31	33975814.37	0.1933	0.1797
Mercury	88315-03-12 09:51 G	33977520.84	33977520.91	33977520.99	0.1592	0.1199
Mercury	88317-02-14 11:17 G	33978225.86	33978225.97	33978226.09	0.1598	0.0200
Venus	88318-12-21 14:10 G	33978900.99	33978901.09	33978901.19	0.1594	0.1301
Mercury	88319-11-29 12:29 G	33979243.87	33979244.02	33979244.18	0.1936	0.0603
Mercury	88324-08-01 21:36 G	33980951.38	33980951.40	33980951.43	0.1591	0.1527
Mercury	88326-07-07 22:48 G	33981656.33	33981656.45	33981656.57	0.1596	0.0156
Earth	88326-10-25 05:17 G	33981765.53	33981765.72	33981765.91	0.1693	0.0324
Moon	88326-10-25 09:36 G	33981765.72	33981765.90	33981766.08	0.1694	0.0092 *
Mercury	88328-06-12 01:12 G	33982361.48	33982361.55	33982361.62	0.1604	0.1295
Mercury	88329-04-20 05:03 G	33982673.56	33982673.71	33982673.87	0.1939	0.0638
Mercury	88335-11-28 10:34 G	33985086.83	33985086.94	33985087.05	0.1595	0.0495
Mercury	88337-11-02 12:29 G	33985791.92	33985792.02	33985792.11	0.1602	0.0932
Mercury	88338-09-09 21:36 G	33986103.37	33986103.40	33986103.43	0.1942	0.1896
Mercury	88345-04-19 22:05 G	33988517.32	33988517.42	33988517.52	0.1593	0.0835

Mercury	88347-03-25 23:46 G	33989222.38	33989222.49	33989222.60	0.1600	0.0579
Mercury	88350-01-07 20:24 G	33990241.31	33990241.35	33990241.38	0.1933	0.1874
Venus	88352-10-19 10:20 G	33991256.76	33991256.93	33991257.09	0.1591	0.0636
Venus	88353-09-22 04:05 G	33991594.51	33991594.67	33991594.83	0.1943	0.0700
Mercury	88354-09-10 09:51 G	33991947.84	33991947.91	33991947.99	0.1592	0.1166
Mercury	88356-08-15 11:17 G	33992652.85	33992652.97	33992653.09	0.1598	0.0227
Mercury	88359-05-30 13:27 G	33993670.90	33993671.06	33993671.21	0.1936	0.0681
Mercury	88364-01-31 21:36 G	33995378.37	33995378.40	33995378.44	0.1591	0.1496
Mercury	88366-01-05 22:48 G	33996083.33	33996083.45	33996083.57	0.1596	0.0125
Mercury	88367-12-12 01:12 G	33996788.48	33996788.55	33996788.61	0.1604	0.1327
Mercury	88368-10-19 06:15 G	33997100.60	33997100.76	33997100.91	0.1939	0.0554
Mercury	88375-05-29 10:34 G	33999513.82	33999513.94	33999514.05	0.1595	0.0468
Mercury	88377-05-03 12:29 G	34000218.92	34000219.02	34000219.11	0.1602	0.0966
Mercury	88378-03-10 22:05 G	34000530.37	34000530.42	34000530.47	0.1941	0.1833
Venus	88384-10-18 02:24 G	34002943.48	34002943.60	34002943.73	0.1593	0.1136
Mercury	88384-10-18 22:05 G	34002944.32	34002944.42	34002944.52	0.1593	0.0804
Mercury	88386-09-23 23:46 G	34003649.38	34003649.49	34003649.60	0.1600	0.0607
Mercury	88389-07-08 20:39 G	34004668.36	34004668.36	34004668.37	0.1933	0.1931
Mercury	88394-03-11 09:51 G	34006374.83	34006374.91	34006374.99	0.1592	0.1135
Mercury	88396-02-14 11:17 G	34007079.85	34007079.97	34007080.09	0.1598	0.0256
Mercury	88398-11-28 14:10 G	34008097.94	34008098.09	34008098.24	0.1937	0.0754
Mercury	88403-08-01 21:36 G	34009805.36	34009805.40	34009805.44	0.1591	0.1465
Mercury	88405-07-06 22:48 G	34010510.33	34010510.45	34010510.57	0.1596	0.0092
Mercury	88407-06-12 01:12 G	34011215.49	34011215.55	34011215.61	0.1604	0.1360
Mercury	88408-04-19 06:58 G	34011527.63	34011527.79	34011527.95	0.1939	0.0470
Mercury	88414-11-27 10:20 G	34013940.82	34013940.93	34013941.05	0.1595	0.0436
Mercury	88416-11-01 12:29 G	34014645.92	34014646.02	34014646.11	0.1602	0.0997
Mercury	88417-09-08 23:03 G	34014957.39	34014957.46	34014957.53	0.1942	0.1749
Venus	88418-08-16 22:48 G	34015299.30	34015299.45	34015299.60	0.1591	0.0795
Venus	88419-07-20 06:44 G	34015636.67	34015636.78	34015636.90	0.1944	0.1420

Mercury	88424-04-18 22:05 G	34017371.32	34017371.42	34017371.52	0.1593	0.0771
Mercury	88426-03-24 23:46 G	34018076.38	34018076.49	34018076.60	0.1600	0.0640
Mercury	88433-09-09 09:51 G	34020801.83	34020801.91	34020801.99	0.1592	0.1106
Mercury	88435-08-15 11:17 G	34021506.85	34021506.97	34021507.09	0.1598	0.0290
Mercury	88438-05-29 14:53 G	34022524.98	34022525.12	34022525.27	0.1936	0.0831
Mercury	88443-01-30 21:36 G	34024232.35	34024232.40	34024232.45	0.1591	0.1435
Mercury	88445-01-04 22:48 G	34024937.33	34024937.45	34024937.57	0.1596	0.0073
Mercury	88446-12-11 01:12 G	34025642.49	34025642.55	34025642.60	0.1604	0.1390
Mercury	88447-10-19 07:27 G	34025954.65	34025954.81	34025954.97	0.1939	0.0411
Venus	88450-08-15 15:22 G	34026986.00	34026986.14	34026986.28	0.1592	0.0983
Mercury	88454-05-28 10:20 G	34028367.82	34028367.93	34028368.05	0.1595	0.0403
Mercury	88456-05-02 12:15 G	34029072.92	34029073.01	34029073.10	0.1602	0.1025
Mercury	88457-03-10 00:00 G	34029384.42	34029384.50	34029384.59	0.1942	0.1661
Mercury	88463-10-18 22:05 G	34031798.32	34031798.42	34031798.52	0.1593	0.0740
Mercury	88465-09-22 23:46 G	34032503.38	34032503.49	34032503.60	0.1600	0.0673
Mercury	88473-03-10 09:51 G	34035228.82	34035228.91	34035228.99	0.1592	0.1074
Mercury	88475-02-13 11:17 G	34035933.85	34035933.97	34035934.08	0.1598	0.0320
Mercury	88477-11-27 15:36 G	34036952.01	34036952.15	34036952.30	0.1936	0.0900
Mercury	88482-07-31 21:36 G	34038659.35	34038659.40	34038659.45	0.1591	0.1404
Venus	88484-06-13 11:46 G	34039341.84	34039341.99	34039342.13	0.1590	0.0946
Mercury	88484-07-05 22:48 G	34039364.33	34039364.45	34039364.57	0.1596	0.0027
Mercury	88486-06-11 01:12 G	34040069.49	34040069.55	34040069.60	0.1604	0.1423
Mercury	88487-04-19 08:39 G	34040381.70	34040381.86	34040382.02	0.1939	0.0319
Mercury	88493-11-26 10:20 G	34042794.82	34042794.93	34042795.05	0.1594	0.0372
Mercury	88495-11-01 12:29 G	34043499.93	34043500.02	34043500.10	0.1602	0.1062
Mercury	88496-09-08 00:29 G	34043811.43	34043811.52	34043811.61	0.1942	0.1596
Mercury	88503-04-19 22:05 G	34046225.31	34046225.42	34046225.52	0.1593	0.0712
Mercury	88505-03-24 23:46 G	34046930.38	34046930.49	34046930.59	0.1600	0.0701
Mercury	88512-09-09 09:51 G	34049655.82	34049655.91	34049655.99	0.1592	0.1044
Mercury	88514-08-15 11:17 G	34050360.85	34050360.97	34050361.08	0.1598	0.0352

Venus	88516-06-13 03:51 G	34051028.51	34051028.66	34051028.81	0.1592	0.0822
Mercury	88517-05-29 16:34 G	34051379.05	34051379.19	34051379.34	0.1937	0.0983
Mercury	88522-01-30 21:36 G	34053086.34	34053086.40	34053086.45	0.1591	0.1374
Mercury	88524-01-05 22:48 G	34053791.33	34053791.45	34053791.57	0.1596	0.0040
Mercury	88525-12-11 01:12 G	34054496.50	34054496.55	34054496.59	0.1604	0.1456
Mercury	88526-10-19 09:22 G	34054808.73	34054808.89	34054809.06	0.1939	0.0244
Mercury	88533-05-28 10:20 G	34057221.82	34057221.93	34057222.05	0.1595	0.0339
Mercury	88535-05-03 12:15 G	34057926.93	34057927.01	34057927.10	0.1602	0.1093
Mercury	88536-03-10 01:27 G	34058238.46	34058238.56	34058238.66	0.1942	0.1514
Mercury	88542-10-18 22:05 G	34060652.31	34060652.42	34060652.52	0.1593	0.0678
Mercury	88544-09-22 23:46 G	34061357.38	34061357.49	34061357.59	0.1600	0.0736
Venus	88550-04-11 23:46 G	34063384.37	34063384.49	34063384.62	0.1590	0.1109
Mercury	88552-03-10 09:36 G	34064082.81	34064082.90	34064082.99	0.1592	0.1016
Mercury	88554-02-13 11:17 G	34064787.85	34064787.97	34064788.08	0.1598	0.0384
Mercury	88556-11-27 17:17 G	34065806.08	34065806.22	34065806.36	0.1936	0.1047
Mercury	88561-07-31 21:36 G	34067513.33	34067513.40	34067513.46	0.1591	0.1344
Mercury	88563-07-06 22:34 G	34068218.33	34068218.44	34068218.56	0.1596	0.0067
Mercury	88565-06-11 01:12 G	34068923.50	34068923.55	34068923.59	0.1604	0.1486
Mercury	88566-04-19 10:05 G	34069235.75	34069235.92	34069236.08	0.1940	0.0180
Mercury	88572-11-26 10:20 G	34071648.81	34071648.93	34071649.05	0.1595	0.0308
Mercury	88574-11-01 12:15 G	34072353.93	34072354.01	34072354.10	0.1602	0.1121
Mercury	88575-09-09 02:39 G	34072665.50	34072665.61	34072665.72	0.1942	0.1423
Venus	88582-04-10 16:20 G	34075071.02	34075071.18	34075071.34	0.1591	0.0665
Mercury	88582-04-18 22:05 G	34075079.31	34075079.42	34075079.52	0.1593	0.0650
Venus	88583-03-14 12:15 G	34075408.87	34075409.01	34075409.14	0.1944	0.1209
Mercury	88584-03-23 23:46 G	34075784.39	34075784.49	34075784.59	0.1600	0.0767
Moon	88585-04-25 00:00 G	34076181.42	34076181.50	34076181.58	0.1852	0.1633
Earth	88585-04-25 05:17 G	34076181.61	34076181.72	34076181.83	0.1852	0.1473
Mercury	88591-09-09 09:36 G	34078509.81	34078509.90	34078509.99	0.1592	0.0982
Mercury	88593-08-14 11:17 G	34079214.85	34079214.97	34079215.08	0.1598	0.0417

Mercury	88596-05-28 18:00 G	34080233.12	34080233.25	34080233.39	0.1936	0.1128
Mercury	88601-01-30 21:22 G	34081940.33	34081940.39	34081940.46	0.1591	0.1314
Mercury	88603-01-05 22:48 G	34082645.33	34082645.45	34082645.56	0.1596	0.0086
Mercury	88604-12-11 00:58 G	34083350.51	34083350.54	34083350.58	0.1604	0.1519
Mercury	88605-10-19 11:03 G	34083662.80	34083662.96	34083663.13	0.1939	0.0093
Earth	88610-10-27 22:05 G	34085497.22	34085497.42	34085497.61	0.1687	0.0170
Moon	88610-10-28 01:12 G	34085497.35	34085497.55	34085497.75	0.1687	0.0440 *
Mercury	88612-05-28 10:20 G	34086075.81	34086075.93	34086076.04	0.1594	0.0279
Mercury	88614-05-03 12:15 G	34086780.93	34086781.01	34086781.09	0.1602	0.1156
Mercury	88615-03-11 02:53 G	34087092.51	34087092.62	34087092.74	0.1942	0.1365
Venus	88616-02-08 12:58 G	34087426.93	34087427.04	34087427.14	0.1590	0.1252
Mercury	88621-10-18 21:51 G	34089506.31	34089506.41	34089506.52	0.1593	0.0620
Mercury	88623-09-23 23:46 G	34090211.38	34090211.49	34090211.59	0.1600	0.0797
Mercury	88631-03-11 09:36 G	34092936.81	34092936.90	34092937.00	0.1592	0.0951
Mercury	88633-02-13 11:17 G	34093641.85	34093641.97	34093642.08	0.1598	0.0449
Mercury	88635-11-28 18:58 G	34094660.17	34094660.29	34094660.42	0.1937	0.1202
Mercury	88640-07-31 21:22 G	34096367.33	34096367.39	34096367.46	0.1591	0.1283
Mercury	88642-07-06 22:34 G	34097072.33	34097072.44	34097072.56	0.1596	0.0112
Mercury	88644-06-11 00:58 G	34097777.52	34097777.54	34097777.57	0.1604	0.1551
Mercury	88645-04-19 12:00 G	34098089.83	34098090.00	34098090.16	0.1939	0.0041
Venus	88648-02-07 05:03 G	34099113.55	34099113.71	34099113.88	0.1591	0.0513
Venus	88649-01-09 13:41 G	34099450.90	34099451.07	34099451.24	0.1945	0.0445
Mercury	88651-11-27 10:20 G	34100502.81	34100502.93	34100503.04	0.1594	0.0247
Mercury	88653-11-01 12:15 G	34101207.93	34101208.01	34101208.09	0.1602	0.1188
Mercury	88654-09-09 04:05 G	34101519.54	34101519.67	34101519.79	0.1942	0.1278
Mercury	88661-04-18 21:51 G	34103933.30	34103933.41	34103933.52	0.1593	0.0588
Mercury	88663-03-24 23:46 G	34104638.39	34104638.49	34104638.59	0.1600	0.0830
Mercury	88670-09-09 09:36 G	34107363.80	34107363.90	34107363.99	0.1592	0.0923
Mercury	88672-08-14 11:03 G	34108068.85	34108068.96	34108069.08	0.1598	0.0481
Mercury	88675-05-29 19:41 G	34109087.20	34109087.32	34109087.44	0.1936	0.1272

Mercury	88680-01-30 21:22 G	34110794.32	34110794.39	34110794.46	0.1591	0.1252
Venus	88681-12-06 01:12 G	34111469.47	34111469.55	34111469.63	0.1589	0.1409
Mercury	88682-01-04 22:34 G	34111499.32	34111499.44	34111499.56	0.1596	0.0127
Mercury	88683-12-11 00:58 G	34112204.53	34112204.54	34112204.56	0.1604	0.1581
Mercury	88684-10-18 12:29 G	34112516.85	34112517.02	34112517.18	0.1940	0.0059
Mercury	88689-06-22 09:07 G	34114224.87	34114224.88	34114224.89	0.1590	0.1580
Mercury	88691-05-28 10:19 G	34114929.81	34114929.93	34114930.04	0.1594	0.0217
Mercury	88693-05-02 12:15 G	34115634.93	34115635.01	34115635.09	0.1602	0.1216
Mercury	88694-03-10 05:03 G	34115946.58	34115946.71	34115946.84	0.1942	0.1190
Mercury	88700-10-18 21:51 G	34118360.30	34118360.41	34118360.52	0.1593	0.0556
Mercury	88702-09-23 23:46 G	34119065.39	34119065.49	34119065.59	0.1600	0.0863
Mercury	88710-03-11 09:36 G	34121790.80	34121790.90	34121791.00	0.1592	0.0889
Mercury	88712-02-14 11:03 G	34122495.85	34122495.96	34122496.08	0.1598	0.0510
Venus	88713-12-05 17:46 G	34123156.07	34123156.24	34123156.41	0.1590	0.0355
Venus	88714-11-07 16:05 G	34123493.00	34123493.17	34123493.34	0.1945	0.0282
Mercury	88714-11-28 20:24 G	34123514.23	34123514.35	34123514.47	0.1936	0.1343
Mercury	88719-08-01 21:22 G	34125221.32	34125221.39	34125221.46	0.1591	0.1222
Mercury	88721-07-06 22:34 G	34125926.33	34125926.44	34125926.56	0.1596	0.0166
Mercury	88724-04-19 13:27 G	34126943.90	34126944.06	34126944.23	0.1940	0.0147
Mercury	88728-12-22 09:07 G	34128651.86	34128651.88	34128651.90	0.1590	0.1551
Mercury	88730-11-27 10:19 G	34129356.81	34129356.93	34129357.04	0.1594	0.0192
Mercury	88732-11-01 12:15 G	34130061.94	34130062.01	34130062.09	0.1602	0.1252
Mercury	88733-09-09 05:31 G	34130373.60	34130373.73	34130373.87	0.1942	0.1129
Mercury	88740-04-18 21:51 G	34132787.30	34132787.41	34132787.52	0.1593	0.0526
Mercury	88742-03-24 23:46 G	34133492.39	34133492.49	34133492.58	0.1599	0.0892
Venus	88747-10-04 14:10 G	34135512.06	34135512.09	34135512.12	0.1589	0.1556
Mercury	88749-09-09 09:36 G	34136217.80	34136217.90	34136218.00	0.1592	0.0859
Mercury	88751-08-15 11:03 G	34136922.85	34136922.96	34136923.07	0.1598	0.0541
Mercury	88754-05-29 21:36 G	34137941.29	34137941.40	34137941.51	0.1937	0.1429
Mercury	88759-01-30 21:22 G	34139648.31	34139648.39	34139648.46	0.1591	0.1191

Mercury	88761-01-04 22:34 G	34140353.32	34140353.44	34140353.56	0.1596	0.0193
Mercury	88763-10-19 14:24 G	34141370.93	34141371.10	34141371.26	0.1939	0.0219
Mercury	88768-06-22 09:07 G	34143078.85	34143078.88	34143078.91	0.1590	0.1518
Mercury	88770-05-28 10:19 G	34143783.81	34143783.93	34143784.04	0.1594	0.0164
Mercury	88772-05-02 12:15 G	34144488.94	34144489.01	34144489.08	0.1602	0.1281
Mercury	88773-03-10 06:29 G	34144800.63	34144800.77	34144800.91	0.1942	0.1045
Venus	88779-10-03 06:29 G	34147198.60	34147198.77	34147198.95	0.1590	0.0203
Mercury	88779-10-18 21:51 G	34147214.30	34147214.41	34147214.52	0.1593	0.0493
Venus	88780-09-03 18:00 G	34147535.10	34147535.25	34147535.40	0.1946	0.1030
Mercury	88781-09-22 23:46 G	34147919.39	34147919.49	34147919.58	0.1600	0.0926
Mercury	88789-03-10 09:22 G	34150644.80	34150644.89	34150644.99	0.1592	0.0834
Mercury	88791-02-13 11:03 G	34151349.85	34151349.96	34151350.07	0.1597	0.0572
Mercury	88793-11-27 22:05 G	34152368.31	34152368.42	34152368.52	0.1936	0.1489
Mercury	88798-07-31 21:22 G	34154075.31	34154075.39	34154075.47	0.1591	0.1160
Mercury	88800-07-05 22:34 G	34154780.32	34154780.44	34154780.56	0.1596	0.0220
Mercury	88803-04-19 14:53 G	34155797.96	34155798.12	34155798.29	0.1940	0.0282
Mercury	88807-12-22 09:07 G	34157505.84	34157505.88	34157505.92	0.1590	0.1489
Mercury	88809-11-26 10:19 G	34158210.81	34158210.93	34158211.04	0.1594	0.0136
Mercury	88811-11-01 12:15 G	34158915.94	34158916.01	34158916.08	0.1602	0.1312
Mercury	88812-09-08 07:41 G	34159227.67	34159227.82	34159227.96	0.1942	0.0955
Earth	88815-10-27 07:41 G	34160371.79	34160371.82	34160371.85	0.1675	0.1648
Mercury	88819-04-18 21:51 G	34161641.30	34161641.41	34161641.52	0.1593	0.0464
Mercury	88821-03-23 23:46 G	34162346.39	34162346.49	34162346.58	0.1599	0.0957
Mercury	88828-09-08 09:36 G	34165071.80	34165071.90	34165072.00	0.1592	0.0797
Mercury	88830-08-14 11:03 G	34165776.85	34165776.96	34165777.07	0.1598	0.0604
Mercury	88833-05-28 22:48 G	34166795.36	34166795.45	34166795.55	0.1937	0.1569
Mercury	88838-01-29 21:22 G	34168502.31	34168502.39	34168502.47	0.1591	0.1132
Mercury	88840-01-04 22:34 G	34169207.32	34169207.44	34169207.56	0.1596	0.0255
Mercury	88842-10-18 15:51 G	34170225.00	34170225.16	34170225.33	0.1940	0.0367
Venus	88845-07-30 19:12 G	34171241.13	34171241.30	34171241.48	0.1589	0.0055

Venus	88846-07-01 20:39 G	34171577.29	34171577.36	34171577.43	0.1946	0.1751
Mercury	88847-06-22 09:07 G	34171932.83	34171932.88	34171932.92	0.1590	0.1461
Mercury	88849-05-27 10:05 G	34172637.81	34172637.92	34172638.04	0.1594	0.0100
Mercury	88851-05-02 12:15 G	34173342.95	34173343.01	34173343.07	0.1602	0.1346
Mercury	88852-03-09 07:55 G	34173654.69	34173654.83	34173654.98	0.1942	0.0899
Mercury	88858-10-17 21:51 G	34176068.29	34176068.41	34176068.52	0.1593	0.0434
Mercury	88860-09-21 23:46 G	34176773.39	34176773.49	34176773.58	0.1599	0.0987
Mercury	88868-03-09 09:22 G	34179498.79	34179498.89	34179499.00	0.1592	0.0770
Moon	88869-04-27 11:03 G	34179912.87	34179912.96	34179913.05	0.1861	0.1639
Mercury	88870-02-12 11:03 G	34180203.85	34180203.96	34180204.07	0.1598	0.0634
Mercury	88872-11-26 23:46 G	34181222.41	34181222.49	34181222.58	0.1937	0.1646
Mercury	88877-07-30 21:22 G	34182929.30	34182929.39	34182929.47	0.1591	0.1101
Mercury	88879-07-05 22:34 G	34183634.32	34183634.44	34183634.56	0.1596	0.0285
Mercury	88882-04-18 16:48 G	34184652.04	34184652.20	34184652.36	0.1940	0.0442
Mercury	88886-12-21 09:07 G	34186359.83	34186359.88	34186359.93	0.1590	0.1428
Mercury	88888-11-25 10:05 G	34187064.81	34187064.92	34187065.04	0.1594	0.0074
Mercury	88890-10-31 12:15 G	34187769.95	34187770.01	34187770.07	0.1602	0.1379
Mercury	88891-09-08 09:07 G	34188081.73	34188081.88	34188082.03	0.1942	0.0808
Moon	88894-10-29 09:36 G	34189228.73	34189228.90	34189229.07	0.1679	0.0814
Earth	88894-10-29 16:48 G	34189229.03	34189229.20	34189229.38	0.1680	0.0716 *
Mercury	88898-04-17 21:51 G	34190495.29	34190495.41	34190495.52	0.1593	0.0402
Mercury	88900-03-23 23:46 G	34191200.40	34191200.49	34191200.58	0.1599	0.1021
Mercury	88907-09-09 09:22 G	34193925.79	34193925.89	34193926.00	0.1591	0.0739
Mercury	88909-08-14 11:03 G	34194630.85	34194630.96	34194631.07	0.1597	0.0666
Venus	88911-05-29 07:55 G	34195283.66	34195283.83	34195284.01	0.1589	0.0110
Mercury	88912-05-29 00:29 G	34195649.45	34195649.52	34195649.59	0.1936	0.1712
Mercury	88917-01-29 21:07 G	34197356.30	34197356.38	34197356.47	0.1591	0.1070
Mercury	88919-01-04 22:34 G	34198061.32	34198061.44	34198061.55	0.1596	0.0316
Mercury	88921-10-18 17:17 G	34199079.07	34199079.22	34199079.38	0.1940	0.0510
Mercury	88926-06-22 08:53 G	34200786.82	34200786.87	34200786.93	0.1590	0.1399

Mercury	88928-05-27 10:05 G	34201491.80	34201491.92	34201492.04	0.1594	0.0049
Mercury	88930-05-02 12:15 G	34202196.96	34202197.01	34202197.06	0.1602	0.1407
Mercury	88931-03-10 10:05 G	34202508.77	34202508.92	34202509.08	0.1942	0.0723
Mercury	88937-10-17 21:36 G	34204922.29	34204922.40	34204922.52	0.1593	0.0376
Mercury	88939-09-22 23:46 G	34205627.40	34205627.49	34205627.58	0.1599	0.1053
Venus	88944-04-29 00:15 G	34207307.42	34207307.51	34207307.60	0.1946	0.1648
Mercury	88947-03-10 09:22 G	34208352.79	34208352.89	34208353.00	0.1591	0.0706
Moon	88948-05-01 02:53 G	34208770.55	34208770.62	34208770.69	0.1855	0.1695
Mercury	88949-02-12 11:03 G	34209057.85	34209057.96	34209058.07	0.1597	0.0697
Mercury	88951-11-28 01:12 G	34210076.49	34210076.55	34210076.61	0.1937	0.1786
Mercury	88956-07-30 21:07 G	34211783.30	34211783.38	34211783.47	0.1591	0.1040
Mercury	88958-07-05 22:34 G	34212488.32	34212488.44	34212488.56	0.1596	0.0349
Mercury	88961-04-18 18:29 G	34213506.11	34213506.27	34213506.43	0.1940	0.0592
Mercury	88965-12-21 08:53 G	34215213.81	34215213.87	34215213.93	0.1590	0.1370
Mercury	88967-11-26 10:05 G	34215918.80	34215918.92	34215919.04	0.1594	0.0006
Mercury	88969-10-31 12:15 G	34216623.96	34216624.01	34216624.06	0.1601	0.1443
Mercury	88970-09-08 10:34 G	34216935.79	34216935.94	34216936.10	0.1942	0.0662
Venus	88977-03-25 20:24 G	34219326.18	34219326.35	34219326.53	0.1589	0.0261
Mercury	88977-04-17 21:36 G	34219349.29	34219349.40	34219349.52	0.1593	0.0343
Mercury	88979-03-23 23:31 G	34220054.40	34220054.48	34220054.57	0.1599	0.1081
Mercury	88980-01-29 02:39 G	34220365.60	34220365.61	34220365.62	0.1945	0.1936
Mercury	88986-09-08 09:22 G	34222779.79	34222779.89	34222780.00	0.1592	0.0675
Mercury	88988-08-13 11:03 G	34223484.85	34223484.96	34223485.06	0.1597	0.0730
Mercury	88991-05-29 02:24 G	34224503.56	34224503.60	34224503.64	0.1937	0.1870
Mercury	88996-01-29 21:07 G	34226210.29	34226210.38	34226210.47	0.1591	0.1008
Mercury	88998-01-03 22:34 G	34226915.32	34226915.44	34226915.55	0.1596	0.0379
Mercury	89000-10-18 19:12 G	34227933.15	34227933.30	34227933.45	0.1940	0.0667

90TH MILLENNIUM CE

This is a list of transits visible from Mars in the 90th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	89005-06-22 08:53	G	34229640.81	34229640.87	34229640.93	0.1590	0.1336	
Mercury	89007-05-28 10:05	G	34230345.80	34230345.92	34230346.04	0.1594	0.0038	
Venus	89009-03-25 12:43	G	34231012.98	34231013.03	34231013.09	0.1589	0.1507	
Mercury	89009-05-02 12:15	G	34231050.97	34231051.01	34231051.06	0.1601	0.1473	
Venus	89010-02-25 02:10	G	34231349.44	34231349.59	34231349.74	0.1946	0.0889	
Mercury	89010-03-10 11:31	G	34231362.83	34231362.98	34231363.14	0.1943	0.0579	
Mercury	89016-10-17 21:36	G	34233776.29	34233776.40	34233776.52	0.1593	0.0311	
Mercury	89018-09-22 23:46	G	34234481.40	34234481.49	34234481.57	0.1599	0.1117	
Mercury	89019-07-31 03:36	G	34234792.60	34234792.65	34234792.70	0.1944	0.1853	
Mercury	89026-03-10 09:22	G	34237206.78	34237206.89	34237207.00	0.1591	0.0647	
Mercury	89028-02-13 11:03	G	34237911.86	34237911.96	34237912.06	0.1597	0.0760	
Mercury	89030-11-28 02:39	G	34238930.60	34238930.61	34238930.63	0.1937	0.1928	
Mercury	89035-07-31 21:07	G	34240637.29	34240637.38	34240637.47	0.1591	0.0977	
Mercury	89037-07-05 22:34	G	34241342.32	34241342.44	34241342.55	0.1596	0.0411	
Mercury	89040-04-18 19:55	G	34242360.18	34242360.33	34242360.48	0.1940	0.0737	
Venus	89043-01-22 09:36	G	34243368.73	34243368.90	34243369.07	0.1589	0.0404	
Mercury	89044-12-21 08:53	G	34244067.81	34244067.87	34244067.93	0.1590	0.1308	
Mercury	89046-11-26 10:05	G	34244772.80	34244772.92	34244773.04	0.1594	0.0066	
Mercury	89048-10-31 12:15	G	34245477.97	34245478.01	34245478.05	0.1602	0.1505	
Mercury	89049-09-08 12:43	G	34245789.87	34245790.03	34245790.19	0.1942	0.0487	
Mercury	89056-04-17 21:36	G	34248203.29	34248203.40	34248203.52	0.1593	0.0279	
Mercury	89058-03-23 23:46	G	34248908.40	34248908.49	34248908.57	0.1599	0.1148	

Mercury	89059-01-29 04:19 G	34249219.62	34249219.68	34249219.75	0.1944	0.1778
Mercury	89065-09-08 09:22 G	34251633.78	34251633.89	34251634.00	0.1591	0.0612
Mercury	89067-08-14 11:03 G	34252338.86	34252338.96	34252339.06	0.1597	0.0792
Venus	89075-01-21 01:41 G	34255055.48	34255055.57	34255055.66	0.1589	0.1354
Mercury	89075-01-29 21:07 G	34255064.29	34255064.38	34255064.47	0.1590	0.0948
Venus	89075-12-23 04:05 G	34255391.49	34255391.67	34255391.84	0.1947	0.0136
Mercury	89077-01-03 22:34 G	34255769.32	34255769.44	34255769.55	0.1595	0.0443
Mercury	89079-10-18 20:53 G	34256787.22	34256787.37	34256787.52	0.1940	0.0817
Mercury	89084-06-21 08:53 G	34258494.80	34258494.87	34258494.93	0.1590	0.1278
Mercury	89086-05-27 10:05 G	34259199.80	34259199.92	34259200.04	0.1594	0.0097
Mercury	89088-05-01 12:15 G	34259904.98	34259905.01	34259905.04	0.1601	0.1538
Mercury	89089-03-09 13:12 G	34260216.89	34260217.05	34260217.21	0.1943	0.0433
Mercury	89095-10-17 21:36 G	34262630.28	34262630.40	34262630.52	0.1593	0.0247
Mercury	89097-09-21 23:31 G	34263335.40	34263335.48	34263335.56	0.1599	0.1176
Mercury	89098-07-30 05:31 G	34263646.65	34263646.73	34263646.81	0.1945	0.1691
Earth	89099-10-30 03:36 G	34264103.50	34264103.65	34264103.80	0.1669	0.1035
Moon	89099-10-30 11:03 G	34264103.82	34264103.96	34264104.10	0.1669	0.1143
Mercury	89105-03-10 09:22 G	34266060.78	34266060.89	34266061.00	0.1591	0.0583
Mercury	89107-02-13 11:03 G	34266765.86	34266765.96	34266766.06	0.1597	0.0824
Venus	89108-11-19 21:51 G	34267411.25	34267411.41	34267411.58	0.1589	0.0561
Mercury	89114-07-31 21:07 G	34269491.28	34269491.38	34269491.47	0.1590	0.0916
Mercury	89116-07-05 22:34 G	34270196.32	34270196.44	34270196.55	0.1596	0.0475
Mercury	89119-04-19 21:36 G	34271214.26	34271214.40	34271214.55	0.1940	0.0895
Mercury	89123-12-22 08:53 G	34272921.80	34272921.87	34272921.94	0.1590	0.1245
Mercury	89125-11-26 10:05 G	34273626.80	34273626.92	34273627.04	0.1594	0.0128
Mercury	89127-11-01 12:15 G	34274331.99	34274332.01	34274332.03	0.1601	0.1570
Mercury	89128-09-08 14:10 G	34274643.93	34274644.09	34274644.26	0.1943	0.0344
Mercury	89133-05-13 20:39 G	34276352.35	34276352.36	34276352.37	0.1589	0.1575
Mercury	89135-04-18 21:36 G	34277057.28	34277057.40	34277057.52	0.1592	0.0215
Mercury	89137-03-23 23:46 G	34277762.41	34277762.49	34277762.56	0.1599	0.1212

Mercury	89138-01-29 06:15 G	34278073.67	34278073.76	34278073.85	0.1944	0.1622
Venus	89140-11-18 14:24 G	34279097.98	34279098.10	34279098.21	0.1589	0.1199
Venus	89141-10-20 06:15 G	34279433.60	34279433.76	34279433.93	0.1947	0.0601
Mercury	89144-09-08 09:22 G	34280487.78	34280487.89	34280488.00	0.1591	0.0556
Mercury	89146-08-14 11:03 G	34281192.86	34281192.96	34281193.06	0.1597	0.0855
Mercury	89154-01-29 21:07 G	34283918.28	34283918.38	34283918.47	0.1590	0.0886
Mercury	89156-01-04 22:34 G	34284623.32	34284623.44	34284623.55	0.1595	0.0506
Mercury	89158-10-18 22:19 G	34285641.29	34285641.43	34285641.57	0.1940	0.0963
Mercury	89163-06-22 08:53 G	34287348.79	34287348.87	34287348.94	0.1590	0.1217
Mercury	89165-05-27 10:05 G	34288053.80	34288053.92	34288054.04	0.1594	0.0161
Mercury	89167-05-02 12:15 G	34288759.01	34288759.01	34288759.01	0.1601	0.1600
Mercury	89168-03-09 15:07 G	34289070.97	34289071.13	34289071.30	0.1942	0.0263
Mercury	89172-11-11 20:39 G	34290779.34	34290779.36	34290779.39	0.1589	0.1542
Venus	89174-09-17 10:48 G	34291453.80	34291453.95	34291454.11	0.1589	0.0708
Mercury	89174-10-17 21:36 G	34291484.28	34291484.40	34291484.52	0.1592	0.0184
Mercury	89176-09-21 23:31 G	34292189.41	34292189.48	34292189.56	0.1599	0.1244
Mercury	89177-07-30 06:58 G	34292500.70	34292500.79	34292500.90	0.1945	0.1537
Earth	89178-11-02 12:43 G	34292960.91	34292961.03	34292961.15	0.1673	0.1292
Moon	89178-11-02 14:53 G	34292961.05	34292961.12	34292961.18	0.1674	0.1560 *
Mercury	89184-03-09 09:22 G	34294914.78	34294914.89	34294915.00	0.1591	0.0520
Mercury	89186-02-12 11:03 G	34295619.86	34295619.96	34295620.06	0.1597	0.0887
Mercury	89193-07-30 21:07 G	34298345.28	34298345.38	34298345.47	0.1590	0.0857
Mercury	89195-07-05 22:34 G	34299050.33	34299050.44	34299050.55	0.1595	0.0538
Mercury	89198-04-18 23:17 G	34300068.34	34300068.47	34300068.61	0.1940	0.1044
Mercury	89202-12-21 08:39 G	34301775.79	34301775.86	34301775.94	0.1590	0.1189
Mercury	89204-11-25 10:05 G	34302480.80	34302480.92	34302481.03	0.1594	0.0193
Venus	89206-09-16 03:07 G	34303140.50	34303140.63	34303140.76	0.1589	0.1049
Venus	89207-08-17 08:10 G	34303475.72	34303475.84	34303475.97	0.1947	0.1352
Mercury	89207-09-08 15:36 G	34303497.99	34303498.15	34303498.32	0.1943	0.0204
Mercury	89212-05-12 20:39 G	34305206.33	34305206.36	34305206.39	0.1589	0.1512

Mercury	89214-04-17 21:36 G	34305911.28	34305911.40	34305911.52	0.1592	0.0155
Mercury	89216-03-22 23:31 G	34306616.41	34306616.48	34306616.55	0.1599	0.1271
Mercury	89217-01-28 07:55 G	34306927.73	34306927.83	34306927.94	0.1945	0.1458
Mercury	89223-09-08 09:22 G	34309341.78	34309341.89	34309342.00	0.1591	0.0491
Mercury	89225-08-13 11:03 G	34310046.86	34310046.96	34310047.05	0.1597	0.0920
Earth	89232-05-03 00:43 G	34312501.40	34312501.53	34312501.66	0.1864	0.1393
Moon	89232-05-03 08:10 G	34312501.70	34312501.84	34312501.97	0.1864	0.1359
Mercury	89233-01-28 20:53 G	34312772.27	34312772.37	34312772.47	0.1590	0.0827
Mercury	89235-01-03 22:34 G	34313477.33	34313477.44	34313477.55	0.1595	0.0569
Mercury	89237-10-18 00:00 G	34314495.37	34314495.50	34314495.64	0.1940	0.1118
Venus	89240-07-14 23:46 G	34315496.34	34315496.49	34315496.64	0.1588	0.0856
Mercury	89242-06-21 08:53 G	34316202.79	34316202.87	34316202.94	0.1589	0.1156
Mercury	89244-05-26 10:05 G	34316907.80	34316907.92	34316908.03	0.1594	0.0226
Mercury	89247-03-09 16:48 G	34317925.03	34317925.20	34317925.36	0.1943	0.0112
Mercury	89251-11-11 20:39 G	34319633.32	34319633.36	34319633.39	0.1589	0.1485
Mercury	89253-10-16 21:36 G	34320338.28	34320338.40	34320338.52	0.1592	0.0122
Mercury	89255-09-21 23:46 G	34321043.42	34321043.49	34321043.55	0.1599	0.1308
Mercury	89256-07-29 08:53 G	34321354.75	34321354.87	34321354.98	0.1945	0.1380
Mercury	89263-03-09 09:07 G	34323768.77	34323768.88	34323769.00	0.1591	0.0466
Mercury	89265-02-11 11:03 G	34324473.86	34324473.96	34324474.05	0.1597	0.0950
Venus	89272-07-13 16:05 G	34327183.02	34327183.17	34327183.31	0.1588	0.0896
Mercury	89272-07-29 20:53 G	34327199.27	34327199.37	34327199.48	0.1590	0.0796
Mercury	89274-07-04 22:19 G	34327904.33	34327904.43	34327904.54	0.1595	0.0601
Mercury	89277-04-18 00:58 G	34328922.41	34328922.54	34328922.67	0.1940	0.1190
Mercury	89281-12-20 08:39 G	34330629.78	34330629.86	34330629.94	0.1589	0.1126
Mercury	89283-11-25 10:05 G	34331334.80	34331334.92	34331335.03	0.1594	0.0257
Mercury	89286-09-07 17:46 G	34332352.08	34332352.24	34332352.41	0.1943	0.0037
Mercury	89291-05-12 20:39 G	34334060.31	34334060.36	34334060.40	0.1589	0.1452
Mercury	89293-04-16 21:36 G	34334765.28	34334765.40	34334765.52	0.1592	0.0098
Mercury	89295-03-22 23:31 G	34335470.42	34335470.48	34335470.55	0.1599	0.1338

Mercury	89296-01-28 09:36 G	34335781.78	34335781.90	34335782.02	0.1945	0.1304
Mercury	89302-09-08 09:22 G	34338195.77	34338195.89	34338196.00	0.1591	0.0430
Mercury	89304-08-13 11:03 G	34338900.86	34338900.96	34338901.05	0.1597	0.0982
Venus	89306-05-13 12:29 G	34339538.89	34339539.02	34339539.16	0.1589	0.1008
Mercury	89312-01-29 20:53 G	34341626.27	34341626.37	34341626.47	0.1590	0.0766
Mercury	89314-01-03 22:34 G	34342331.33	34342331.44	34342331.55	0.1595	0.0633
Mercury	89316-10-18 01:41 G	34343349.45	34343349.57	34343349.70	0.1940	0.1267
Mercury	89321-06-21 08:39 G	34345056.78	34345056.86	34345056.94	0.1589	0.1096
Mercury	89323-05-27 09:51 G	34345761.80	34345761.91	34345762.03	0.1594	0.0285
Mercury	89326-03-09 18:15 G	34346779.09	34346779.26	34346779.42	0.1943	0.0035
Mercury	89330-11-11 20:24 G	34348487.31	34348487.35	34348487.41	0.1589	0.1424
Mercury	89332-10-16 21:36 G	34349192.28	34349192.40	34349192.51	0.1592	0.0071
Mercury	89334-09-21 23:31 G	34349897.42	34349897.48	34349897.54	0.1599	0.1366
Mercury	89335-07-30 10:48 G	34350208.82	34350208.95	34350209.08	0.1945	0.1215
Venus	89338-05-12 04:48 G	34351225.54	34351225.70	34351225.85	0.1588	0.0747
Mercury	89342-03-09 09:07 G	34352622.77	34352622.88	34352623.00	0.1591	0.0403
Mercury	89344-02-12 11:03 G	34353327.87	34353327.96	34353328.05	0.1597	0.1015
Mercury	89351-07-30 20:53 G	34356053.27	34356053.37	34356053.48	0.1590	0.0733
Mercury	89353-07-04 22:34 G	34356758.33	34356758.44	34356758.54	0.1595	0.0664
Mercury	89356-04-18 02:39 G	34357776.49	34357776.61	34357776.72	0.1940	0.1342
Mercury	89360-12-20 08:39 G	34359483.78	34359483.86	34359483.95	0.1589	0.1064
Mercury	89362-11-25 09:51 G	34360188.80	34360188.91	34360189.03	0.1594	0.0321
Mercury	89365-09-07 19:27 G	34361206.14	34361206.31	34361206.47	0.1943	0.0125
Mercury	89370-05-12 20:24 G	34362914.30	34362914.35	34362914.41	0.1589	0.1395
Venus	89371-04-11 14:39 G	34363247.99	34363248.11	34363248.24	0.1948	0.1337
Venus	89372-03-10 01:12 G	34363581.43	34363581.55	34363581.67	0.1589	0.1159
Mercury	89372-04-16 21:36 G	34363619.28	34363619.40	34363619.51	0.1592	0.0051
Mercury	89374-03-22 23:31 G	34364324.43	34364324.48	34364324.54	0.1599	0.1403
Mercury	89375-01-28 11:17 G	34364635.84	34364635.97	34364636.10	0.1945	0.1151
Mercury	89381-09-07 09:07 G	34367049.77	34367049.88	34367050.00	0.1591	0.0371

Mercury	89383-08-13 11:03 G	34367754.87	34367754.96	34367755.05	0.1597	0.1044
Moon	89383-11-01 22:34 G	34367835.26	34367835.44	34367835.63	0.1663	0.0669
Earth	89383-11-02 00:29 G	34367835.33	34367835.52	34367835.71	0.1663	0.0409 *
Mercury	89391-01-28 20:53 G	34370480.27	34370480.37	34370480.48	0.1590	0.0702
Mercury	89393-01-02 22:19 G	34371185.33	34371185.43	34371185.54	0.1595	0.0693
Mercury	89395-10-18 03:22 G	34372203.53	34372203.64	34372203.75	0.1941	0.1413
Mercury	89400-06-21 08:39 G	34373910.77	34373910.86	34373910.95	0.1589	0.1035
Mercury	89402-05-27 09:51 G	34374615.80	34374615.91	34374616.03	0.1594	0.0350
Venus	89404-03-09 17:17 G	34375268.06	34375268.22	34375268.39	0.1588	0.0593
Mercury	89405-03-09 20:10 G	34375633.18	34375633.34	34375633.51	0.1943	0.0205
Mercury	89409-11-11 20:24 G	34377341.30	34377341.35	34377341.41	0.1589	0.1363
Mercury	89411-10-17 21:36 G	34378046.28	34378046.40	34378046.51	0.1592	0.0054
Mercury	89413-09-21 23:31 G	34378751.43	34378751.48	34378751.54	0.1599	0.1434
Mercury	89414-07-30 12:15 G	34379062.87	34379063.01	34379063.15	0.1945	0.1065
Mercury	89421-03-09 09:07 G	34381476.77	34381476.88	34381477.00	0.1591	0.0340
Mercury	89423-02-12 11:03 G	34382181.87	34382181.96	34382182.04	0.1597	0.1077
Mercury	89430-07-30 20:53 G	34384907.26	34384907.37	34384907.47	0.1590	0.0674
Mercury	89432-07-04 22:34 G	34385612.33	34385612.44	34385612.54	0.1595	0.0727
Mercury	89435-04-19 04:05 G	34386630.57	34386630.67	34386630.78	0.1940	0.1489
Venus	89437-02-06 16:19 G	34387290.02	34387290.18	34387290.35	0.1947	0.0571
Venus	89438-01-06 14:10 G	34387623.99	34387624.09	34387624.19	0.1589	0.1311
Mercury	89439-12-21 08:39 G	34388337.77	34388337.86	34388337.95	0.1589	0.1006
Mercury	89441-11-25 09:51 G	34389042.80	34389042.91	34389043.03	0.1593	0.0374
Mercury	89444-09-07 20:53 G	34390060.20	34390060.37	34390060.53	0.1943	0.0267
Mercury	89449-05-12 20:24 G	34391768.29	34391768.35	34391768.41	0.1589	0.1333
Mercury	89451-04-17 21:36 G	34392473.28	34392473.40	34392473.51	0.1592	0.0069
Mercury	89453-03-22 23:31 G	34393178.44	34393178.48	34393178.53	0.1599	0.1461
Mercury	89454-01-28 13:12 G	34393489.91	34393490.05	34393490.20	0.1945	0.0985
Mercury	89460-09-07 09:07 G	34395903.77	34395903.88	34395904.00	0.1591	0.0308
Mercury	89462-08-13 11:03 G	34396608.87	34396608.96	34396609.04	0.1597	0.1110

Venus	89470-01-05 06:15 G	34399310.59	34399310.76	34399310.93	0.1588	0.0447
Mercury	89470-01-28 20:53 G	34399334.26	34399334.37	34399334.48	0.1590	0.0642
Mercury	89472-01-03 22:19 G	34400039.33	34400039.43	34400039.54	0.1595	0.0757
Mercury	89474-10-18 05:03 G	34401057.61	34401057.71	34401057.80	0.1940	0.1563
Mercury	89479-06-21 08:39 G	34402764.77	34402764.86	34402764.95	0.1589	0.0973
Mercury	89481-05-26 09:51 G	34403469.80	34403469.91	34403470.03	0.1593	0.0410
Mercury	89484-03-08 21:51 G	34404487.25	34404487.41	34404487.57	0.1943	0.0348
Mercury	89488-11-10 20:24 G	34406195.28	34406195.35	34406195.41	0.1589	0.1305
Mercury	89490-10-16 21:36 G	34406900.28	34406900.40	34406900.51	0.1592	0.0089
Mercury	89492-09-20 23:31 G	34407605.45	34407605.48	34407605.52	0.1599	0.1498
Mercury	89493-07-29 13:55 G	34407916.94	34407917.08	34407917.23	0.1945	0.0913
Mercury	89500-03-09 09:07 G	34410330.76	34410330.88	34410331.00	0.1591	0.0279
Mercury	89502-02-12 11:03 G	34411035.87	34411035.96	34411036.04	0.1597	0.1138
Venus	89502-12-05 18:15 G	34411332.08	34411332.26	34411332.43	0.1947	0.0198
Venus	89503-11-05 02:53 G	34411666.55	34411666.62	34411666.69	0.1589	0.1460
Mercury	89509-07-30 20:53 G	34413761.26	34413761.37	34413761.48	0.1590	0.0612
Mercury	89511-07-05 22:19 G	34414466.33	34414466.43	34414466.54	0.1595	0.0787
Mercury	89514-04-19 05:46 G	34415484.66	34415484.74	34415484.83	0.1941	0.1636
Moon	89516-05-05 12:43 G	34416231.83	34416232.03	34416232.22	0.1874	0.0258
Earth	89516-05-05 20:53 G	34416232.20	34416232.37	34416232.55	0.1874	0.0828 *
Mercury	89518-12-21 08:39 G	34417191.76	34417191.86	34417191.95	0.1589	0.0945
Mercury	89520-11-25 09:51 G	34417896.80	34417896.91	34417897.03	0.1594	0.0441
Mercury	89523-09-08 22:48 G	34418914.29	34418914.45	34418914.61	0.1943	0.0432
Mercury	89528-05-12 20:24 G	34420622.28	34420622.35	34420622.42	0.1588	0.1272
Mercury	89530-04-17 21:22 G	34421327.28	34421327.39	34421327.51	0.1592	0.0105
Mercury	89532-03-22 23:31 G	34422032.45	34422032.48	34422032.52	0.1599	0.1528
Mercury	89533-01-28 14:53 G	34422343.97	34422344.12	34422344.27	0.1945	0.0838
Venus	89535-11-03 18:43 G	34423353.11	34423353.28	34423353.46	0.1588	0.0291
Mercury	89539-09-08 09:07 G	34424757.76	34424757.88	34424758.00	0.1591	0.0244
Mercury	89541-08-13 11:03 G	34425462.88	34425462.96	34425463.04	0.1597	0.1172

Mercury	89549-01-28 20:39 G	34428188.26	34428188.36	34428188.47	0.1590	0.0587
Mercury	89551-01-03 22:19 G	34428893.33	34428893.43	34428893.54	0.1595	0.0821
Mercury	89553-10-18 06:29 G	34429911.70	34429911.77	34429911.85	0.1940	0.1708
Mercury	89558-06-21 08:24 G	34431618.76	34431618.85	34431618.95	0.1589	0.0917
Mercury	89560-05-26 09:51 G	34432323.80	34432323.91	34432324.02	0.1593	0.0467
Mercury	89563-03-09 23:17 G	34433341.31	34433341.47	34433341.63	0.1943	0.0488
Mercury	89567-11-11 20:24 G	34435049.28	34435049.35	34435049.42	0.1589	0.1243
Venus	89568-10-01 20:10 G	34435374.19	34435374.34	34435374.50	0.1947	0.0930
Mercury	89569-10-16 21:22 G	34435754.28	34435754.39	34435754.51	0.1592	0.0137
Mercury	89571-09-21 23:31 G	34436459.46	34436459.48	34436459.50	0.1599	0.1556
Mercury	89572-07-29 16:05 G	34436771.01	34436771.17	34436771.32	0.1945	0.0747
Mercury	89577-04-03 08:10 G	34438479.83	34438479.84	34438479.85	0.1588	0.1569
Mercury	89579-03-09 09:07 G	34439184.76	34439184.88	34439185.00	0.1591	0.0215
Mercury	89581-02-11 11:03 G	34439889.88	34439889.96	34439890.03	0.1597	0.1204
Mercury	89588-07-29 20:53 G	34442615.26	34442615.37	34442615.48	0.1590	0.0554
Mercury	89590-07-04 22:19 G	34443320.33	34443320.43	34443320.53	0.1595	0.0850
Mercury	89593-04-18 07:12 G	34444338.74	34444338.80	34444338.87	0.1940	0.1782
Mercury	89597-12-20 08:39 G	34446045.76	34446045.86	34446045.95	0.1589	0.0886
Mercury	89599-11-25 09:51 G	34446750.80	34446750.91	34446751.02	0.1593	0.0502
Venus	89601-08-31 07:41 G	34447395.65	34447395.82	34447396.00	0.1588	0.0145
Mercury	89602-09-08 00:15 G	34447768.36	34447768.51	34447768.67	0.1943	0.0580
Mercury	89607-05-12 20:10 G	34449476.27	34449476.34	34449476.42	0.1588	0.1217
Mercury	89609-04-16 21:22 G	34450181.27	34450181.39	34450181.51	0.1592	0.0159
Mercury	89611-03-22 23:31 G	34450886.48	34450886.48	34450886.49	0.1599	0.1593
Mercury	89612-01-28 16:19 G	34451198.03	34451198.18	34451198.34	0.1945	0.0688
Mercury	89616-10-02 08:10 G	34452906.81	34452906.84	34452906.86	0.1588	0.1539
Mercury	89618-09-07 09:07 G	34453611.76	34453611.88	34453611.99	0.1591	0.0191
Mercury	89620-08-12 10:48 G	34454316.88	34454316.95	34454317.03	0.1597	0.1234
Mercury	89628-01-28 20:39 G	34457042.25	34457042.36	34457042.47	0.1590	0.0522
Mercury	89630-01-02 22:19 G	34457747.33	34457747.43	34457747.53	0.1595	0.0879

Mercury	89632-10-17 08:10 G	34458765.80	34458765.84	34458765.89	0.1941	0.1855
Venus	89634-07-29 22:05 G	34459416.34	34459416.42	34459416.51	0.1946	0.1684
Mercury	89637-06-20 08:24 G	34460472.76	34460472.85	34460472.95	0.1589	0.0856
Mercury	89639-05-26 09:51 G	34461177.80	34461177.91	34461178.02	0.1593	0.0532
Mercury	89642-03-09 01:12 G	34462195.39	34462195.55	34462195.70	0.1943	0.0653
Mercury	89646-11-10 20:24 G	34463903.27	34463903.35	34463903.42	0.1588	0.1184
Mercury	89648-10-15 21:22 G	34464608.28	34464608.39	34464608.51	0.1592	0.0190
Mercury	89651-07-29 17:31 G	34465625.07	34465625.23	34465625.38	0.1945	0.0602
Mercury	89656-04-02 08:10 G	34467333.80	34467333.84	34467333.87	0.1588	0.1512
Mercury	89658-03-08 09:07 G	34468038.76	34468038.88	34468039.00	0.1591	0.0156
Mercury	89660-02-11 11:03 G	34468743.89	34468743.96	34468744.03	0.1597	0.1266
Mercury	89660-12-18 09:07 G	34469054.85	34469054.88	34469054.92	0.1947	0.1887
Venus	89667-06-28 20:39 G	34471438.18	34471438.36	34471438.53	0.1588	0.0044
Mercury	89667-07-29 20:39 G	34471469.25	34471469.36	34471469.47	0.1590	0.0493
Moon	89667-11-04 17:03 G	34471567.03	34471567.21	34471567.39	0.1657	0.0073
Earth	89667-11-04 21:51 G	34471567.22	34471567.41	34471567.60	0.1657	0.0218 *
Mercury	89669-07-03 22:19 G	34472174.34	34472174.43	34472174.53	0.1595	0.0913
Mercury	89672-04-17 08:53 G	34473192.86	34473192.87	34473192.89	0.1940	0.1925
Mercury	89676-12-19 08:24 G	34474899.75	34474899.85	34474899.95	0.1589	0.0825
Mercury	89678-11-24 09:51 G	34475604.80	34475604.91	34475605.02	0.1593	0.0561
Mercury	89681-09-07 01:41 G	34476622.42	34476622.57	34476622.72	0.1943	0.0716
Mercury	89686-05-11 20:10 G	34478330.27	34478330.34	34478330.42	0.1588	0.1155
Mercury	89688-04-15 21:22 G	34479035.27	34479035.39	34479035.51	0.1592	0.0219
Mercury	89691-01-27 18:29 G	34480052.11	34480052.27	34480052.43	0.1945	0.0520
Mercury	89695-10-02 07:55 G	34481760.80	34481760.83	34481760.87	0.1588	0.1482
Mercury	89697-09-06 09:07 G	34482465.76	34482465.88	34482465.99	0.1591	0.0132
Mercury	89699-08-12 11:03 G	34483170.89	34483170.96	34483171.02	0.1597	0.1298
Mercury	89700-06-19 10:05 G	34483481.86	34483481.92	34483481.98	0.1947	0.1804
Mercury	89707-01-28 20:39 G	34485896.25	34485896.36	34485896.47	0.1590	0.0460
Mercury	89709-01-02 22:19 G	34486601.34	34486601.43	34486601.53	0.1595	0.0942

Mercury	89716-06-20 08:24 G	34489326.75	34489326.85	34489326.95	0.1589	0.0794
Mercury	89718-05-26 09:51 G	34490031.80	34490031.91	34490032.02	0.1593	0.0595
Mercury	89721-03-09 02:39 G	34491049.46	34491049.61	34491049.76	0.1943	0.0799
Mercury	89725-11-10 20:10 G	34492757.26	34492757.34	34492757.42	0.1588	0.1127
Mercury	89727-10-16 21:22 G	34493462.27	34493462.39	34493462.51	0.1592	0.0248
Mercury	89730-07-29 18:58 G	34494479.13	34494479.29	34494479.45	0.1945	0.0453
Venus	89732-05-27 02:24 G	34495146.52	34495146.60	34495146.67	0.1948	0.1736
Venus	89733-04-26 09:07 G	34495480.70	34495480.88	34495481.05	0.1589	0.0165
Mercury	89735-04-03 07:55 G	34496187.79	34496187.83	34496187.88	0.1588	0.1452
Mercury	89737-03-08 08:53 G	34496892.75	34496892.87	34496892.99	0.1591	0.0102
Mercury	89739-02-11 10:48 G	34497597.89	34497597.95	34497598.02	0.1597	0.1327
Mercury	89739-12-19 10:48 G	34497908.88	34497908.95	34497909.02	0.1947	0.1737
Mercury	89746-07-29 20:39 G	34500323.25	34500323.36	34500323.47	0.1590	0.0429
Mercury	89748-07-03 22:19 G	34501028.34	34501028.43	34501028.52	0.1595	0.0973
Mercury	89755-12-20 08:24 G	34503753.75	34503753.85	34503753.95	0.1589	0.0765
Mercury	89757-11-24 09:51 G	34504458.80	34504458.91	34504459.02	0.1593	0.0625
Mercury	89760-09-07 03:36 G	34505476.51	34505476.65	34505476.80	0.1943	0.0879
Venus	89765-04-25 01:27 G	34507167.55	34507167.56	34507167.56	0.1588	0.1587
Mercury	89765-05-11 20:10 G	34507184.26	34507184.34	34507184.42	0.1588	0.1094
Mercury	89767-04-16 21:22 G	34507889.27	34507889.39	34507889.51	0.1592	0.0278
Mercury	89770-01-27 19:55 G	34508906.16	34508906.33	34508906.49	0.1946	0.0378
Mercury	89774-10-02 07:55 G	34510614.78	34510614.83	34510614.88	0.1588	0.1423
Mercury	89776-09-06 08:53 G	34511319.76	34511319.87	34511319.99	0.1591	0.0088
Mercury	89778-08-12 11:03 G	34512024.90	34512024.96	34512025.02	0.1597	0.1361
Mercury	89779-06-19 12:00 G	34512335.91	34512336.00	34512336.08	0.1947	0.1649
Mercury	89786-01-27 20:39 G	34514750.24	34514750.36	34514750.47	0.1590	0.0403
Mercury	89788-01-02 22:19 G	34515455.34	34515455.43	34515455.52	0.1595	0.1005
Mercury	89795-06-20 08:24 G	34518180.75	34518180.85	34518180.95	0.1589	0.0735
Mercury	89797-05-25 09:36 G	34518885.80	34518885.90	34518886.01	0.1593	0.0655
Venus	89798-03-24 04:34 G	34519188.54	34519188.69	34519188.83	0.1948	0.0991

Venus	89799-02-21 22:05 G	34519523.25	34519523.42	34519523.59	0.1589	0.0314
Mercury	89800-03-09 04:05 G	34519903.53	34519903.67	34519903.81	0.1944	0.0935
Earth	89800-05-07 14:10 G	34519962.89	34519963.09	34519963.28	0.1883	0.0101
Moon	89800-05-07 14:53 G	34519962.94	34519963.12	34519963.29	0.1883	0.0154 *
Mercury	89804-11-10 20:10 G	34521611.25	34521611.34	34521611.42	0.1588	0.1065
Mercury	89806-10-16 21:22 G	34522316.27	34522316.39	34522316.51	0.1592	0.0311
Mercury	89809-07-29 21:07 G	34523333.21	34523333.38	34523333.54	0.1946	0.0289
Mercury	89814-04-03 07:55 G	34525041.78	34525041.83	34525041.88	0.1588	0.1392
Mercury	89816-03-08 08:53 G	34525746.75	34525746.87	34525746.99	0.1591	0.0051
Mercury	89818-02-11 11:03 G	34526451.90	34526451.96	34526452.01	0.1597	0.1392
Mercury	89818-12-19 12:29 G	34526762.93	34526763.02	34526763.12	0.1947	0.1577
Mercury	89825-07-29 20:39 G	34529177.24	34529177.36	34529177.47	0.1590	0.0370
Mercury	89827-07-04 22:19 G	34529882.34	34529882.43	34529882.52	0.1595	0.1036
Venus	89831-02-21 14:10 G	34531210.02	34531210.09	34531210.16	0.1588	0.1433
Mercury	89834-12-20 08:24 G	34532607.74	34532607.85	34532607.95	0.1589	0.0705
Mercury	89836-11-24 09:51 G	34533312.80	34533312.91	34533313.01	0.1593	0.0689
Mercury	89839-09-08 05:17 G	34534330.58	34534330.72	34534330.86	0.1943	0.1025
Mercury	89844-05-11 20:10 G	34536038.25	34536038.34	34536038.42	0.1588	0.1039
Mercury	89846-04-16 21:22 G	34536743.27	34536743.39	34536743.50	0.1592	0.0340
Mercury	89849-01-27 21:22 G	34537760.23	34537760.39	34537760.55	0.1945	0.0230
Mercury	89853-10-02 07:55 G	34539468.77	34539468.83	34539468.89	0.1588	0.1363
Mercury	89855-09-07 08:53 G	34540173.75	34540173.87	34540173.99	0.1590	0.0006
Mercury	89857-08-12 10:48 G	34540878.90	34540878.95	34540879.01	0.1596	0.1421
Mercury	89858-06-19 13:27 G	34541189.96	34541190.06	34541190.17	0.1947	0.1499
Venus	89864-01-20 06:00 G	34543230.58	34543230.75	34543230.92	0.1947	0.0219
Venus	89864-12-20 10:34 G	34543565.78	34543565.94	34543566.11	0.1589	0.0472
Mercury	89865-01-27 20:39 G	34543604.24	34543604.36	34543604.47	0.1590	0.0341
Mercury	89867-01-02 22:19 G	34544309.34	34544309.43	34544309.52	0.1595	0.1067
Earth	89872-11-04 13:55 G	34546441.97	34546442.08	34546442.20	0.1648	0.1290
Moon	89872-11-04 19:55 G	34546442.17	34546442.33	34546442.50	0.1648	0.0953 *

Mercury	89874-06-20 08:24 G	34547034.74	34547034.85	34547034.95	0.1589	0.0676
Mercury	89876-05-25 09:51 G	34547739.80	34547739.91	34547740.01	0.1593	0.0719
Mercury	89879-03-09 06:00 G	34548757.61	34548757.75	34548757.88	0.1943	0.1096
Mercury	89883-11-10 20:10 G	34550465.25	34550465.34	34550465.43	0.1588	0.1005
Mercury	89885-10-15 21:22 G	34551170.27	34551170.39	34551170.50	0.1592	0.0372
Mercury	89888-07-28 22:19 G	34552187.27	34552187.43	34552187.60	0.1946	0.0148
Mercury	89893-04-02 07:55 G	34553895.77	34553895.83	34553895.89	0.1588	0.1336
Mercury	89895-03-08 08:53 G	34554600.75	34554600.87	34554600.99	0.1590	0.0034
Venus	89896-12-19 02:53 G	34555252.52	34555252.62	34555252.72	0.1588	0.1284
Mercury	89897-02-10 11:03 G	34555305.91	34555305.96	34555306.00	0.1597	0.1455
Mercury	89897-12-18 14:24 G	34555616.99	34555617.10	34555617.21	0.1947	0.1423
Mercury	89904-07-29 20:24 G	34558031.24	34558031.35	34558031.47	0.1589	0.0316
Mercury	89906-07-04 22:19 G	34558736.34	34558736.43	34558736.51	0.1595	0.1099
Mercury	89913-12-20 08:24 G	34561461.74	34561461.85	34561461.95	0.1589	0.0647
Mercury	89915-11-25 09:36 G	34562166.80	34562166.90	34562167.01	0.1593	0.0746
Mercury	89918-09-08 06:29 G	34563184.64	34563184.77	34563184.90	0.1944	0.1161
Mercury	89923-05-12 19:55 G	34564892.24	34564892.33	34564892.43	0.1588	0.0978
Mercury	89925-04-16 21:22 G	34565597.27	34565597.39	34565597.50	0.1592	0.0404
Mercury	89928-01-28 23:17 G	34566614.31	34566614.47	34566614.64	0.1946	0.0076
Venus	89929-11-17 07:41 G	34567272.65	34567272.82	34567272.98	0.1947	0.0543
Venus	89930-10-18 23:31 G	34567608.31	34567608.48	34567608.64	0.1590	0.0622
Mercury	89932-10-02 07:55 G	34568322.76	34568322.83	34568322.89	0.1588	0.1304
Mercury	89934-09-07 08:53 G	34569027.75	34569027.87	34569027.99	0.1590	0.0061
Mercury	89936-08-12 11:03 G	34569732.91	34569732.96	34569733.00	0.1597	0.1487
Mercury	89937-06-19 15:07 G	34570044.01	34570044.13	34570044.25	0.1947	0.1341
Mercury	89944-01-28 20:39 G	34572458.24	34572458.36	34572458.47	0.1589	0.0285
Mercury	89946-01-02 22:19 G	34573163.34	34573163.43	34573163.51	0.1595	0.1129
Earth	89951-11-08 19:55 G	34575299.16	34575299.33	34575299.49	0.1651	0.0849
Moon	89951-11-09 02:10 G	34575299.42	34575299.59	34575299.75	0.1652	0.0763 *
Mercury	89953-06-20 08:10 G	34575888.74	34575888.84	34575888.95	0.1589	0.0617

Mercury	89955-05-26 09:36 G	34576593.80	34576593.90	34576594.01	0.1593	0.0782
Mercury	89958-03-09 07:27 G	34577611.69	34577611.81	34577611.94	0.1943	0.1241
Venus	89962-10-17 15:22 G	34579295.02	34579295.14	34579295.26	0.1588	0.1128
Mercury	89962-11-10 19:55 G	34579319.24	34579319.33	34579319.42	0.1588	0.0949
Mercury	89964-10-15 21:22 G	34580024.27	34580024.39	34580024.50	0.1592	0.0434
Mercury	89967-07-30 00:00 G	34581041.33	34581041.50	34581041.66	0.1946	0.0049
Mercury	89972-04-02 07:41 G	34582749.76	34582749.82	34582749.89	0.1588	0.1276
Mercury	89974-03-08 08:53 G	34583454.75	34583454.87	34583454.98	0.1590	0.0099
Mercury	89976-02-11 10:48 G	34584159.92	34584159.95	34584159.99	0.1596	0.1514
Mercury	89976-12-18 16:05 G	34584471.04	34584471.17	34584471.29	0.1948	0.1272
Mercury	89983-07-29 20:24 G	34586885.24	34586885.35	34586885.47	0.1589	0.0254
Mercury	89985-07-03 22:19 G	34587590.35	34587590.43	34587590.51	0.1595	0.1161
Mercury	89992-12-19 08:10 G	34590315.73	34590315.84	34590315.95	0.1589	0.0586
Mercury	89994-11-24 09:36 G	34591020.80	34591020.90	34591021.01	0.1593	0.0812
Venus	89995-09-14 09:51 G	34591314.78	34591314.91	34591315.04	0.1946	0.1279
Venus	89996-08-15 12:00 G	34591650.85	34591651.00	34591651.16	0.1590	0.0780
Mercury	89997-09-07 08:24 G	34592038.73	34592038.85	34592038.97	0.1943	0.1319

91ST MILLENNIUM CE

This is a list of transits visible from Mars in the 91st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	90002-05-11 19:55 G	34593746.24	34593746.33	34593746.43	0.1588	0.0916		
Mercury	90004-04-15 21:22 G	34594451.27	34594451.39	34594451.50	0.1591	0.0467		

Mercury	90007-01-28 00:43 G	34595468.37	34595468.53	34595468.70	0.1946	0.0083
Mercury	90011-10-02 07:41 G	34597176.75	34597176.82	34597176.89	0.1587	0.1247
Mercury	90013-09-06 08:53 G	34597881.75	34597881.87	34597881.99	0.1590	0.0124
Mercury	90015-08-12 10:48 G	34598586.93	34598586.95	34598586.98	0.1596	0.1549
Mercury	90016-06-18 17:03 G	34598898.08	34598898.21	34598898.34	0.1947	0.1188
Mercury	90021-02-21 19:41 G	34600607.30	34600607.32	34600607.33	0.1587	0.1573
Mercury	90023-01-27 20:24 G	34601312.23	34601312.35	34601312.47	0.1589	0.0222
Mercury	90025-01-01 22:19 G	34602017.35	34602017.43	34602017.50	0.1595	0.1192
Venus	90028-08-14 04:19 G	34603337.54	34603337.68	34603337.82	0.1589	0.0981
Mercury	90032-06-19 08:10 G	34604742.73	34604742.84	34604742.95	0.1589	0.0555
Mercury	90034-05-25 09:36 G	34605447.80	34605447.90	34605448.00	0.1593	0.0837
Mercury	90037-03-08 08:53 G	34606465.75	34606465.87	34606465.98	0.1944	0.1378
Mercury	90041-11-09 19:55 G	34608173.23	34608173.33	34608173.43	0.1588	0.0887
Mercury	90043-10-15 21:22 G	34608878.27	34608878.39	34608878.50	0.1592	0.0498
Mercury	90046-07-29 01:55 G	34609895.42	34609895.58	34609895.75	0.1946	0.0170
Mercury	90051-04-02 07:41 G	34611603.75	34611603.82	34611603.90	0.1587	0.1216
Mercury	90053-03-07 08:53 G	34612308.75	34612308.87	34612308.98	0.1590	0.0162
Mercury	90055-02-10 10:48 G	34613013.94	34613013.95	34613013.97	0.1597	0.1580
Mercury	90055-12-18 17:31 G	34613325.10	34613325.23	34613325.37	0.1947	0.1117
Mercury	90060-08-22 19:41 G	34615034.29	34615034.32	34615034.34	0.1587	0.1542
Venus	90062-06-13 00:58 G	34615693.40	34615693.54	34615693.68	0.1591	0.0928
Mercury	90062-07-28 20:24 G	34615739.24	34615739.35	34615739.47	0.1589	0.0191
Mercury	90064-07-02 22:05 G	34616444.35	34616444.42	34616444.50	0.1595	0.1224
Mercury	90071-12-19 08:10 G	34619169.73	34619169.84	34619169.95	0.1588	0.0525
Mercury	90073-11-23 09:36 G	34619874.81	34619874.90	34619875.00	0.1593	0.0875
Mercury	90076-09-06 09:51 G	34620892.81	34620892.91	34620893.02	0.1944	0.1465
Mercury	90081-05-10 19:55 G	34622600.23	34622600.33	34622600.42	0.1588	0.0861
Mercury	90083-04-15 21:07 G	34623305.27	34623305.38	34623305.49	0.1591	0.0524
Earth	90084-05-08 05:17 G	34623693.54	34623693.72	34623693.89	0.1892	0.0780
Moon	90084-05-08 11:03 G	34623693.77	34623693.96	34623694.16	0.1892	0.0697 *

Mercury	90086-01-27 02:10 G	34624322.43	34624322.59	34624322.76	0.1946	0.0225
Mercury	90090-10-01 07:41 G	34626030.74	34626030.82	34626030.90	0.1587	0.1186
Mercury	90092-09-05 08:39 G	34626735.75	34626735.86	34626735.98	0.1590	0.0186
Venus	90094-06-11 16:48 G	34627380.05	34627380.20	34627380.36	0.1589	0.0825
Mercury	90095-06-18 18:29 G	34627752.14	34627752.27	34627752.42	0.1948	0.1037
Mercury	90100-02-21 19:27 G	34629461.28	34629461.31	34629461.35	0.1587	0.1514
Mercury	90102-01-27 20:24 G	34630166.23	34630166.35	34630166.47	0.1589	0.0159
Mercury	90104-01-02 22:05 G	34630871.35	34630871.42	34630871.50	0.1595	0.1256
Mercury	90111-06-20 08:10 G	34633596.73	34633596.84	34633596.95	0.1588	0.0495
Mercury	90113-05-25 09:36 G	34634301.80	34634301.90	34634302.00	0.1593	0.0903
Mercury	90116-03-08 10:34 G	34635319.84	34635319.94	34635320.04	0.1943	0.1534
Mercury	90120-11-09 19:55 G	34637027.23	34637027.33	34637027.43	0.1588	0.0828
Mercury	90122-10-15 21:07 G	34637732.27	34637732.38	34637732.49	0.1591	0.0557
Mercury	90125-07-29 03:22 G	34638749.48	34638749.64	34638749.80	0.1946	0.0310
Venus	90128-04-10 13:12 G	34639735.92	34639736.05	34639736.18	0.1591	0.1091
Mercury	90130-04-02 07:41 G	34640457.74	34640457.82	34640457.90	0.1587	0.1159
Mercury	90132-03-07 08:39 G	34641162.75	34641162.86	34641162.98	0.1590	0.0217
Mercury	90134-12-18 19:27 G	34642179.16	34642179.31	34642179.45	0.1947	0.0963
Mercury	90139-08-23 19:27 G	34643888.27	34643888.31	34643888.35	0.1587	0.1485
Mercury	90141-07-28 20:24 G	34644593.23	34644593.35	34644593.47	0.1589	0.0132
Mercury	90143-07-03 22:05 G	34645298.36	34645298.42	34645298.49	0.1594	0.1287
Mercury	90150-12-19 08:10 G	34648023.72	34648023.84	34648023.95	0.1588	0.0467
Mercury	90152-11-23 09:36 G	34648728.80	34648728.90	34648729.00	0.1593	0.0931
Mercury	90155-09-07 11:17 G	34649746.88	34649746.97	34649747.06	0.1944	0.1601
Moon	90156-11-07 06:43 G	34650173.59	34650173.78	34650173.96	0.1642	0.0565
Earth	90156-11-07 12:58 G	34650173.87	34650174.04	34650174.22	0.1642	0.0617 *
Venus	90159-05-09 15:36 G	34651087.03	34651087.15	34651087.28	0.1947	0.1374
Venus	90160-04-09 05:31 G	34651422.57	34651422.73	34651422.89	0.1589	0.0669
Mercury	90160-05-10 19:55 G	34651454.22	34651454.33	34651454.43	0.1588	0.0801
Mercury	90162-04-15 21:07 G	34652159.27	34652159.38	34652159.49	0.1591	0.0587

Mercury	90165-01-27 04:19 G	34653176.52	34653176.68	34653176.84	0.1946	0.0391
Mercury	90169-10-01 07:41 G	34654884.74	34654884.82	34654884.90	0.1587	0.1127
Mercury	90171-09-06 08:39 G	34655589.75	34655589.86	34655589.98	0.1590	0.0245
Mercury	90174-06-18 20:10 G	34656606.20	34656606.34	34656606.49	0.1948	0.0882
Mercury	90179-02-21 19:27 G	34658315.27	34658315.31	34658315.36	0.1587	0.1455
Mercury	90181-01-26 20:24 G	34659020.23	34659020.35	34659020.47	0.1589	0.0098
Mercury	90183-01-01 22:05 G	34659725.36	34659725.42	34659725.49	0.1594	0.1317
Mercury	90190-06-19 08:10 G	34662450.72	34662450.84	34662450.95	0.1588	0.0439
Mercury	90192-05-24 09:36 G	34663155.81	34663155.90	34663156.00	0.1593	0.0965
Venus	90194-02-06 02:10 G	34663778.48	34663778.59	34663778.70	0.1592	0.1239
Mercury	90195-03-08 12:15 G	34664173.93	34664174.01	34664174.09	0.1944	0.1678
Mercury	90199-11-09 19:41 G	34665881.22	34665881.32	34665881.42	0.1588	0.0771
Mercury	90201-10-15 21:07 G	34666586.27	34666586.38	34666586.49	0.1591	0.0615
Mercury	90204-07-29 04:48 G	34667603.54	34667603.70	34667603.86	0.1946	0.0451
Mercury	90209-04-02 07:41 G	34669311.73	34669311.82	34669311.90	0.1587	0.1099
Mercury	90211-03-08 08:39 G	34670016.74	34670016.86	34670016.98	0.1590	0.0271
Mercury	90213-12-18 21:07 G	34671033.23	34671033.38	34671033.53	0.1948	0.0809
Mercury	90218-08-23 19:27 G	34672742.26	34672742.31	34672742.36	0.1587	0.1426
Mercury	90220-07-28 20:24 G	34673447.23	34673447.35	34673447.47	0.1589	0.0072
Mercury	90222-07-03 22:05 G	34674152.36	34674152.42	34674152.49	0.1595	0.1349
Venus	90225-03-06 17:46 G	34675129.07	34675129.24	34675129.40	0.1947	0.0622
Venus	90226-02-05 18:29 G	34675465.10	34675465.27	34675465.43	0.1590	0.0518
Mercury	90229-12-19 07:55 G	34676877.72	34676877.83	34676877.95	0.1588	0.0410
Mercury	90231-11-24 09:36 G	34677582.81	34677582.90	34677582.99	0.1593	0.0996
Mercury	90234-09-07 12:58 G	34678600.97	34678601.04	34678601.11	0.1944	0.1755
Earth	90235-11-11 18:43 G	34679031.20	34679031.28	34679031.36	0.1646	0.1485
Moon	90235-11-11 20:39 G	34679031.25	34679031.36	34679031.48	0.1646	0.1358 *
Mercury	90239-05-11 19:41 G	34680308.22	34680308.32	34680308.43	0.1588	0.0739
Mercury	90241-04-15 21:07 G	34681013.27	34681013.38	34681013.49	0.1591	0.0648
Mercury	90244-01-28 05:46 G	34682030.58	34682030.74	34682030.89	0.1946	0.0532

Mercury	90248-10-01 07:27 G	34683738.73	34683738.81	34683738.90	0.1587	0.1072
Mercury	90250-09-06 08:39 G	34684443.74	34684443.86	34684443.98	0.1590	0.0304
Mercury	90253-06-18 21:51 G	34685460.26	34685460.41	34685460.57	0.1948	0.0732
Mercury	90258-02-21 19:27 G	34687169.25	34687169.31	34687169.36	0.1587	0.1397
Venus	90259-12-05 14:24 G	34687821.02	34687821.10	34687821.19	0.1592	0.1402
Mercury	90260-01-27 20:10 G	34687874.23	34687874.34	34687874.46	0.1589	0.0076
Mercury	90262-01-01 22:05 G	34688579.37	34688579.42	34688579.48	0.1594	0.1379
Mercury	90269-06-19 07:55 G	34691304.72	34691304.83	34691304.95	0.1588	0.0377
Mercury	90271-05-25 09:36 G	34692009.81	34692009.90	34692009.99	0.1593	0.1024
Mercury	90274-03-08 13:27 G	34693028.01	34693028.06	34693028.12	0.1944	0.1817
Mercury	90278-11-09 19:41 G	34694735.22	34694735.32	34694735.43	0.1588	0.0710
Mercury	90280-10-14 21:07 G	34695440.27	34695440.38	34695440.49	0.1591	0.0679
Mercury	90283-07-29 06:43 G	34696457.63	34696457.78	34696457.94	0.1946	0.0620
Mercury	90288-04-01 07:27 G	34698165.73	34698165.81	34698165.90	0.1587	0.1041
Mercury	90290-03-07 08:39 G	34698870.74	34698870.86	34698870.98	0.1590	0.0333
Venus	90291-01-01 19:27 G	34699171.14	34699171.31	34699171.48	0.1945	0.0141
Venus	90291-12-04 06:58 G	34699507.62	34699507.79	34699507.96	0.1590	0.0359
Mercury	90292-12-17 22:34 G	34699887.29	34699887.44	34699887.60	0.1948	0.0658
Mercury	90297-08-22 19:27 G	34701596.25	34701596.31	34701596.36	0.1587	0.1368
Mercury	90299-07-28 20:24 G	34702301.23	34702301.35	34702301.46	0.1589	0.0046
Mercury	90301-07-03 22:05 G	34703006.37	34703006.42	34703006.48	0.1594	0.1411
Mercury	90302-05-10 14:24 G	34703317.10	34703317.10	34703317.11	0.1949	0.1945
Mercury	90308-12-19 07:55 G	34705731.72	34705731.83	34705731.95	0.1588	0.0347
Mercury	90310-11-24 09:36 G	34706436.81	34706436.90	34706436.99	0.1593	0.1059
Mercury	90313-09-07 14:39 G	34707455.08	34707455.11	34707455.14	0.1944	0.1899
Mercury	90318-05-11 19:41 G	34709162.21	34709162.32	34709162.42	0.1587	0.0682
Mercury	90320-04-15 21:07 G	34709867.27	34709867.38	34709867.48	0.1591	0.0707
Mercury	90323-01-28 06:58 G	34710884.64	34710884.79	34710884.95	0.1946	0.0672
Venus	90325-10-03 03:22 G	34711863.60	34711863.64	34711863.67	0.1593	0.1557
Mercury	90327-10-02 07:27 G	34712592.72	34712592.81	34712592.90	0.1587	0.1011

Mercury	90329-09-06 08:39 G	34713297.74	34713297.86	34713297.97	0.1590	0.0364
Mercury	90332-06-18 23:46 G	34714314.33	34714314.49	34714314.65	0.1948	0.0574
Mercury	90337-02-21 19:12 G	34716023.24	34716023.30	34716023.36	0.1587	0.1340
Mercury	90339-01-27 20:24 G	34716728.23	34716728.35	34716728.46	0.1589	0.0065
Mercury	90341-01-01 22:05 G	34717433.37	34717433.42	34717433.47	0.1594	0.1442
Mercury	90341-11-08 15:22 G	34717744.09	34717744.14	34717744.18	0.1949	0.1866
Mercury	90348-06-19 07:55 G	34720158.71	34720158.83	34720158.95	0.1588	0.0315
Mercury	90350-05-25 09:36 G	34720863.81	34720863.90	34720863.98	0.1593	0.1088
Venus	90356-10-29 21:07 G	34723213.22	34723213.38	34723213.53	0.1944	0.0902
Venus	90357-10-01 19:41 G	34723550.15	34723550.32	34723550.50	0.1591	0.0212
Mercury	90357-11-09 19:41 G	34723589.21	34723589.32	34723589.43	0.1587	0.0649
Mercury	90359-10-15 21:07 G	34724294.27	34724294.38	34724294.48	0.1591	0.0741
Mercury	90362-07-29 08:10 G	34725311.69	34725311.84	34725311.99	0.1946	0.0760
Mercury	90367-04-02 07:27 G	34727019.72	34727019.81	34727019.90	0.1587	0.0983
Earth	90368-05-10 18:43 G	34727424.21	34727424.28	34727424.35	0.1901	0.1769
Mercury	90369-03-07 08:39 G	34727724.74	34727724.86	34727724.97	0.1590	0.0395
Mercury	90371-12-19 00:15 G	34728741.35	34728741.51	34728741.67	0.1948	0.0509
Mercury	90376-08-22 19:12 G	34730450.24	34730450.30	34730450.37	0.1587	0.1309
Mercury	90378-07-28 20:10 G	34731155.22	34731155.34	34731155.46	0.1589	0.0057
Mercury	90380-07-02 22:05 G	34731860.38	34731860.42	34731860.46	0.1594	0.1472
Mercury	90381-05-09 15:51 G	34732171.10	34732171.16	34732171.22	0.1949	0.1802
Mercury	90387-12-19 07:55 G	34734585.71	34734585.83	34734585.95	0.1588	0.0285
Mercury	90389-11-23 09:36 G	34735290.81	34735290.90	34735290.98	0.1593	0.1118
Mercury	90397-05-10 19:41 G	34738016.21	34738016.32	34738016.42	0.1587	0.0622
Mercury	90399-04-15 21:07 G	34738721.27	34738721.38	34738721.48	0.1591	0.0772
Mercury	90402-01-27 09:07 G	34739738.73	34739738.88	34739739.03	0.1946	0.0838
Mercury	90406-10-01 07:26 G	34741446.72	34741446.81	34741446.90	0.1587	0.0950
Mercury	90408-09-05 08:38 G	34742151.74	34742151.86	34742151.97	0.1590	0.0426
Mercury	90411-06-19 01:12 G	34743168.39	34743168.55	34743168.71	0.1948	0.0424
Mercury	90416-02-21 19:12 G	34744877.23	34744877.30	34744877.37	0.1587	0.1280

Mercury	90418-01-26 20:10 G	34745582.23	34745582.34	34745582.46	0.1589	0.0097
Mercury	90420-01-01 22:05 G	34746287.39	34746287.42	34746287.46	0.1594	0.1505
Mercury	90420-11-07 17:02 G	34746598.13	34746598.21	34746598.28	0.1949	0.1716
Venus	90422-08-26 23:17 G	34747255.38	34747255.47	34747255.57	0.1943	0.1629
Venus	90423-07-30 08:24 G	34747592.68	34747592.85	34747593.03	0.1591	0.0055
Mercury	90427-06-19 07:55 G	34749012.71	34749012.83	34749012.94	0.1588	0.0258
Mercury	90429-05-24 09:36 G	34749717.82	34749717.90	34749717.98	0.1592	0.1152
Mercury	90436-11-08 19:41 G	34752443.21	34752443.32	34752443.42	0.1587	0.0594
Mercury	90438-10-14 21:07 G	34753148.27	34753148.38	34753148.48	0.1591	0.0802
Moon	90440-11-10 11:46 G	34753905.81	34753905.99	34753906.17	0.1637	0.0198
Earth	90440-11-10 12:58 G	34753905.84	34753906.04	34753906.23	0.1637	0.0076 *
Mercury	90441-07-28 09:36 G	34754165.76	34754165.90	34754166.05	0.1946	0.0899
Mercury	90446-04-01 07:26 G	34755873.71	34755873.81	34755873.90	0.1587	0.0922
Mercury	90448-03-06 08:38 G	34756578.74	34756578.86	34756578.97	0.1590	0.0458
Mercury	90450-12-18 02:10 G	34757595.43	34757595.59	34757595.75	0.1948	0.0347
Mercury	90455-08-22 19:12 G	34759304.23	34759304.30	34759304.37	0.1587	0.1251
Mercury	90457-07-27 20:10 G	34760009.22	34760009.34	34760009.46	0.1589	0.0119
Mercury	90459-07-02 22:05 G	34760714.39	34760714.42	34760714.45	0.1594	0.1537
Mercury	90460-05-08 18:00 G	34761025.16	34761025.25	34761025.34	0.1949	0.1632
Mercury	90465-01-12 06:58 G	34762734.78	34762734.79	34762734.80	0.1587	0.1576
Mercury	90466-12-18 07:55 G	34763439.71	34763439.83	34763439.94	0.1588	0.0227
Mercury	90468-11-22 09:36 G	34764144.82	34764144.90	34764144.98	0.1593	0.1183
Mercury	90476-05-09 19:41 G	34766870.21	34766870.32	34766870.43	0.1587	0.0562
Mercury	90478-04-14 21:07 G	34767575.27	34767575.38	34767575.48	0.1591	0.0835
Mercury	90481-01-26 10:34 G	34768592.80	34768592.94	34768593.08	0.1946	0.0980
Mercury	90485-09-30 07:26 G	34770300.71	34770300.81	34770300.90	0.1587	0.0895
Mercury	90487-09-05 08:38 G	34771005.74	34771005.86	34771005.97	0.1590	0.0489
Venus	90489-05-26 21:07 G	34771635.21	34771635.38	34771635.56	0.1592	0.0099
Mercury	90490-06-18 02:53 G	34772022.46	34772022.62	34772022.79	0.1948	0.0274
Mercury	90495-02-20 19:12 G	34773731.22	34773731.30	34773731.37	0.1587	0.1222

Mercury	90497-01-25 20:10 G	34774436.22	34774436.34	34774436.46	0.1589	0.0142
Mercury	90498-12-31 22:05 G	34775141.40	34775141.42	34775141.44	0.1594	0.1567
Mercury	90499-11-07 18:29 G	34775452.17	34775452.27	34775452.37	0.1949	0.1570
Mercury	90504-07-14 06:58 G	34777161.77	34777161.79	34777161.81	0.1587	0.1548
Mercury	90506-06-19 07:55 G	34777866.71	34777866.83	34777866.94	0.1588	0.0200
Mercury	90508-05-24 09:22 G	34778571.82	34778571.89	34778571.97	0.1592	0.1213
Mercury	90515-11-09 19:26 G	34781297.20	34781297.31	34781297.42	0.1587	0.0533
Mercury	90517-10-14 21:07 G	34782002.28	34782002.38	34782002.47	0.1591	0.0866
Venus	90520-06-24 03:36 G	34782985.58	34782985.65	34782985.72	0.1946	0.1771
Mercury	90520-07-28 11:31 G	34783019.85	34783019.98	34783020.12	0.1946	0.1067
Mercury	90525-04-01 07:26 G	34784727.71	34784727.81	34784727.90	0.1587	0.0862
Mercury	90527-03-07 08:38 G	34785432.74	34785432.86	34785432.97	0.1590	0.0521
Mercury	90529-12-18 03:36 G	34786449.49	34786449.65	34786449.82	0.1948	0.0200
Mercury	90534-08-22 19:12 G	34788158.22	34788158.30	34788158.37	0.1587	0.1192
Mercury	90536-07-27 20:10 G	34788863.22	34788863.34	34788863.46	0.1589	0.0178
Mercury	90539-05-09 19:41 G	34789879.21	34789879.32	34789879.42	0.1949	0.1480
Mercury	90544-01-13 06:58 G	34791588.76	34791588.79	34791588.82	0.1587	0.1521
Mercury	90545-12-18 07:41 G	34792293.71	34792293.82	34792293.94	0.1588	0.0173
Mercury	90547-11-23 09:36 G	34792998.83	34792998.90	34792998.97	0.1592	0.1246
Venus	90555-03-25 09:36 G	34795677.72	34795677.90	34795678.07	0.1593	0.0259
Mercury	90555-05-10 19:26 G	34795724.20	34795724.31	34795724.42	0.1587	0.0503
Mercury	90557-04-14 20:53 G	34796429.27	34796429.37	34796429.47	0.1591	0.0893
Mercury	90560-01-27 12:00 G	34797446.86	34797447.00	34797447.13	0.1947	0.1119
Mercury	90564-09-30 07:12 G	34799154.71	34799154.80	34799154.90	0.1587	0.0835
Mercury	90566-09-05 08:24 G	34799859.74	34799859.85	34799859.97	0.1590	0.0553
Mercury	90569-06-18 04:48 G	34800876.53	34800876.70	34800876.86	0.1949	0.0114
Mercury	90574-02-20 18:58 G	34802585.22	34802585.29	34802585.37	0.1587	0.1165
Mercury	90576-01-26 20:10 G	34803290.22	34803290.34	34803290.46	0.1589	0.0206
Mercury	90578-11-07 20:24 G	34804306.24	34804306.35	34804306.47	0.1949	0.1402
Mercury	90583-07-14 06:58 G	34806015.75	34806015.79	34806015.83	0.1586	0.1487

Mercury	90585-06-18 07:41 G	34806720.71	34806720.82	34806720.94	0.1588	0.0144
Venus	90586-04-21 05:17 G	34807027.57	34807027.72	34807027.87	0.1945	0.1016
Venus	90587-03-24 01:55 G	34807364.53	34807364.58	34807364.64	0.1590	0.1504
Mercury	90587-05-24 09:36 G	34807425.83	34807425.90	34807425.97	0.1592	0.1276
Mercury	90594-11-08 19:26 G	34810151.20	34810151.31	34810151.43	0.1587	0.0471
Mercury	90596-10-13 20:53 G	34810856.28	34810856.37	34810856.47	0.1591	0.0929
Mercury	90599-07-28 13:12 G	34811873.92	34811874.05	34811874.17	0.1947	0.1209
Mercury	90604-04-01 07:12 G	34813581.70	34813581.80	34813581.90	0.1587	0.0806
Mercury	90606-03-07 08:24 G	34814286.74	34814286.85	34814286.96	0.1590	0.0582
Mercury	90608-12-18 05:17 G	34815303.56	34815303.72	34815303.89	0.1948	0.0052
Mercury	90613-08-22 18:58 G	34817012.21	34817012.29	34817012.37	0.1587	0.1133
Mercury	90615-07-28 20:10 G	34817717.22	34817717.34	34817717.45	0.1589	0.0237
Mercury	90618-05-09 21:07 G	34818733.26	34818733.38	34818733.50	0.1950	0.1334
Venus	90621-01-20 22:19 G	34819720.26	34819720.43	34819720.61	0.1594	0.0411
Mercury	90623-01-13 06:58 G	34820442.75	34820442.79	34820442.83	0.1587	0.1461
Mercury	90624-12-18 07:41 G	34821147.70	34821147.82	34821147.94	0.1588	0.0109
Mercury	90626-11-23 09:36 G	34821852.83	34821852.90	34821852.96	0.1592	0.1307
Mercury	90634-05-10 19:26 G	34824578.20	34824578.31	34824578.42	0.1587	0.0441
Mercury	90636-04-14 20:53 G	34825283.28	34825283.37	34825283.47	0.1591	0.0959
Mercury	90639-01-27 13:55 G	34826300.96	34826301.08	34826301.20	0.1946	0.1286
Mercury	90643-10-01 07:12 G	34828008.70	34828008.80	34828008.90	0.1587	0.0773
Mercury	90645-09-05 08:24 G	34828713.74	34828713.85	34828713.96	0.1590	0.0613
Earth	90645-11-11 08:38 G	34828780.74	34828780.86	34828780.98	0.1629	0.1245
Moon	90645-11-11 09:36 G	34828780.78	34828780.90	34828781.01	0.1629	0.1359 *
Mercury	90648-06-18 06:14 G	34829730.60	34829730.76	34829730.93	0.1948	0.0036
Venus	90652-02-17 07:12 G	34831069.63	34831069.80	34831069.97	0.1944	0.0270
Venus	90653-01-19 14:53 G	34831407.03	34831407.12	34831407.21	0.1591	0.1352
Mercury	90653-02-20 18:58 G	34831439.21	34831439.29	34831439.38	0.1586	0.1104
Mercury	90655-01-26 20:10 G	34832144.22	34832144.34	34832144.46	0.1589	0.0269
Mercury	90657-11-07 22:05 G	34833160.30	34833160.42	34833160.55	0.1949	0.1250

Mercury	90662-07-14 06:58 G	34834869.74	34834869.79	34834869.83	0.1586	0.1433
Mercury	90664-06-18 07:41 G	34835574.70	34835574.82	34835574.94	0.1588	0.0076
Mercury	90666-05-24 09:36 G	34836279.84	34836279.90	34836279.96	0.1592	0.1340
Mercury	90673-11-08 19:26 G	34839005.20	34839005.31	34839005.42	0.1587	0.0411
Mercury	90675-10-14 20:53 G	34839710.28	34839710.37	34839710.46	0.1591	0.0987
Mercury	90678-07-28 14:24 G	34840727.99	34840728.10	34840728.22	0.1947	0.1349
Mercury	90683-04-01 07:12 G	34842435.70	34842435.80	34842435.90	0.1587	0.0743
Mercury	90685-03-06 08:24 G	34843140.75	34843140.85	34843140.96	0.1590	0.0643
Venus	90686-11-18 10:48 G	34843762.79	34843762.95	34843763.12	0.1594	0.0570
Mercury	90687-12-18 07:12 G	34844157.64	34844157.80	34844157.97	0.1949	0.0115
Mercury	90692-08-21 18:58 G	34845866.21	34845866.29	34845866.38	0.1586	0.1074
Mercury	90694-07-27 20:10 G	34846571.22	34846571.34	34846571.45	0.1589	0.0300
Mercury	90697-05-08 23:02 G	34847587.33	34847587.46	34847587.59	0.1949	0.1167
Mercury	90702-01-13 06:58 G	34849296.73	34849296.79	34849296.84	0.1586	0.1400
Mercury	90703-12-19 07:41 G	34850001.70	34850001.82	34850001.94	0.1588	0.0047
Mercury	90705-11-23 09:36 G	34850706.84	34850706.90	34850706.95	0.1592	0.1372
Mercury	90713-05-10 19:26 G	34853432.20	34853432.31	34853432.42	0.1587	0.0379
Mercury	90715-04-15 20:53 G	34854137.28	34854137.37	34854137.46	0.1591	0.1022
Venus	90717-12-15 09:22 G	34855111.72	34855111.89	34855112.05	0.1942	0.0476
Mercury	90718-01-27 15:22 G	34855155.03	34855155.14	34855155.25	0.1947	0.1429
Venus	90718-11-18 03:22 G	34855449.53	34855449.64	34855449.76	0.1592	0.1196
Mercury	90722-10-01 07:12 G	34856862.69	34856862.80	34856862.90	0.1586	0.0715
Mercury	90724-09-05 08:24 G	34857567.75	34857567.85	34857567.96	0.1589	0.0675
Earth	90724-11-14 13:41 G	34857637.90	34857638.07	34857638.24	0.1632	0.0770
Moon	90724-11-14 20:24 G	34857638.20	34857638.35	34857638.50	0.1633	0.1019 *
Mercury	90727-06-19 07:55 G	34858584.67	34858584.83	34858584.99	0.1948	0.0186
Moon	90731-05-17 04:48 G	34860012.55	34860012.70	34860012.86	0.1904	0.1039
Earth	90731-05-17 12:14 G	34860012.90	34860013.01	34860013.13	0.1904	0.1553
Mercury	90732-02-21 18:58 G	34860293.20	34860293.29	34860293.38	0.1586	0.1043
Mercury	90734-01-26 19:55 G	34860998.22	34860998.33	34860998.45	0.1588	0.0333

Mercury	90736-11-07 23:46 G	34862014.35	34862014.49	34862014.62	0.1950	0.1101
Mercury	90741-07-14 06:43 G	34863723.73	34863723.78	34863723.84	0.1586	0.1373
Mercury	90743-06-19 07:41 G	34864428.70	34864428.82	34864428.94	0.1588	0.0012
Mercury	90745-05-24 09:22 G	34865133.84	34865133.89	34865133.95	0.1592	0.1402
Venus	90752-09-15 23:31 G	34867805.33	34867805.48	34867805.64	0.1595	0.0726
Mercury	90752-11-08 19:26 G	34867859.19	34867859.31	34867859.42	0.1587	0.0349
Mercury	90754-10-14 20:53 G	34868564.28	34868564.37	34868564.46	0.1591	0.1053
Mercury	90757-07-28 16:34 G	34869582.09	34869582.19	34869582.29	0.1947	0.1515
Mercury	90762-04-01 07:12 G	34871289.69	34871289.80	34871289.91	0.1586	0.0682
Mercury	90764-03-06 08:24 G	34871994.75	34871994.85	34871994.96	0.1590	0.0705
Mercury	90766-12-18 08:38 G	34873011.70	34873011.86	34873012.03	0.1949	0.0265
Mercury	90771-08-22 18:58 G	34874720.20	34874720.29	34874720.38	0.1586	0.1015
Mercury	90773-07-27 20:10 G	34875425.22	34875425.34	34875425.45	0.1588	0.0364
Mercury	90776-05-09 00:43 G	34876441.39	34876441.53	34876441.68	0.1950	0.1014
Mercury	90781-01-12 06:43 G	34878150.72	34878150.78	34878150.84	0.1586	0.1345
Mercury	90782-12-18 07:41 G	34878855.70	34878855.82	34878855.94	0.1588	0.0021
Venus	90783-10-12 11:02 G	34879153.83	34879153.96	34879154.09	0.1941	0.1222
Venus	90784-09-14 16:19 G	34879492.05	34879492.18	34879492.31	0.1592	0.1046
Mercury	90784-11-22 09:36 G	34879560.85	34879560.90	34879560.95	0.1592	0.1436
Mercury	90792-05-09 19:26 G	34882286.19	34882286.31	34882286.42	0.1587	0.0322
Mercury	90794-04-14 20:53 G	34882991.28	34882991.37	34882991.46	0.1591	0.1081
Mercury	90797-01-26 16:48 G	34884009.11	34884009.20	34884009.30	0.1947	0.1569
Mercury	90801-09-30 07:12 G	34885716.69	34885716.80	34885716.91	0.1587	0.0653
Mercury	90803-09-05 08:24 G	34886421.75	34886421.85	34886421.96	0.1590	0.0737
Mercury	90806-06-18 09:50 G	34887438.75	34887438.91	34887439.07	0.1949	0.0351
Mercury	90811-02-20 18:58 G	34889147.20	34889147.29	34889147.38	0.1586	0.0985
Mercury	90813-01-25 20:10 G	34889852.22	34889852.34	34889852.45	0.1588	0.0395
Mercury	90815-11-08 01:41 G	34890868.42	34890868.57	34890868.71	0.1950	0.0936
Venus	90818-07-14 12:14 G	34891847.87	34891848.01	34891848.16	0.1596	0.0884
Mercury	90820-07-13 06:43 G	34892577.72	34892577.78	34892577.85	0.1586	0.1312

Mercury	90822-06-18 07:41 G	34893282.70	34893282.82	34893282.94	0.1588	0.0053
Mercury	90824-05-23 09:22 G	34893987.85	34893987.89	34893987.94	0.1592	0.1467
Mercury	90831-11-08 19:26 G	34896713.19	34896713.31	34896713.42	0.1587	0.0288
Mercury	90833-10-13 20:53 G	34897418.29	34897418.37	34897418.46	0.1591	0.1117
Mercury	90836-07-27 18:00 G	34898436.17	34898436.25	34898436.33	0.1947	0.1658
Mercury	90841-03-31 06:58 G	34900143.69	34900143.79	34900143.90	0.1586	0.0628
Mercury	90843-03-06 08:24 G	34900848.75	34900848.85	34900848.96	0.1589	0.0767
Mercury	90845-12-17 10:19 G	34901865.77	34901865.93	34901866.09	0.1949	0.0411
Venus	90849-08-08 13:41 G	34903196.07	34903196.07	34903196.08	0.1939	0.1934
Venus	90850-07-13 05:02 G	34903534.56	34903534.71	34903534.85	0.1593	0.0889
Mercury	90850-08-21 18:58 G	34903574.19	34903574.29	34903574.38	0.1586	0.0954
Mercury	90852-07-26 19:55 G	34904279.22	34904279.33	34904279.45	0.1588	0.0421
Mercury	90855-05-09 02:24 G	34905295.45	34905295.60	34905295.75	0.1950	0.0863
Mercury	90860-01-12 06:43 G	34907004.71	34907004.78	34907004.85	0.1586	0.1284
Mercury	90861-12-17 07:41 G	34907709.70	34907709.82	34907709.94	0.1588	0.0082
Mercury	90863-11-22 09:22 G	34908414.86	34908414.89	34908414.93	0.1592	0.1499
Mercury	90871-05-09 19:26 G	34911140.19	34911140.31	34911140.42	0.1587	0.0264
Mercury	90873-04-13 20:53 G	34911845.29	34911845.37	34911845.45	0.1591	0.1147
Mercury	90876-01-26 18:43 G	34912863.21	34912863.28	34912863.36	0.1947	0.1734
Mercury	90880-09-29 07:12 G	34914570.69	34914570.80	34914570.91	0.1586	0.0593
Mercury	90882-09-04 08:24 G	34915275.75	34915275.85	34915275.95	0.1589	0.0799
Venus	90884-05-11 00:43 G	34915890.40	34915890.53	34915890.67	0.1597	0.1045
Mercury	90885-06-17 11:17 G	34916292.81	34916292.97	34916293.13	0.1949	0.0498
Mercury	90890-02-19 18:58 G	34918001.19	34918001.29	34918001.38	0.1586	0.0927
Mercury	90892-01-25 19:55 G	34918706.22	34918706.33	34918706.45	0.1588	0.0458
Mercury	90894-11-07 03:22 G	34919722.49	34919722.64	34919722.79	0.1950	0.0780
Mercury	90899-07-13 06:43 G	34921431.71	34921431.78	34921431.85	0.1586	0.1255
Mercury	90901-06-18 07:41 G	34922136.70	34922136.82	34922136.93	0.1587	0.0119
Mercury	90903-05-24 09:22 G	34922841.87	34922841.89	34922841.93	0.1592	0.1532
Mercury	90908-12-03 18:29 G	34924862.27	34924862.27	34924862.28	0.1586	0.1581

Mercury	90910-11-08 19:26 G	34925567.19	34925567.31	34925567.42	0.1587	0.0235
Mercury	90912-10-13 20:53 G	34926272.29	34926272.37	34926272.45	0.1591	0.1176
Mercury	90915-07-28 19:26 G	34927290.25	34927290.31	34927290.37	0.1947	0.1798
Venus	90916-05-10 17:31 G	34927577.08	34927577.23	34927577.39	0.1594	0.0738
Mercury	90920-03-31 06:58 G	34928997.68	34928997.79	34928997.90	0.1586	0.0565
Mercury	90922-03-06 08:24 G	34929702.75	34929702.85	34929702.95	0.1589	0.0830
Mercury	90924-12-17 12:14 G	34930719.86	34930720.01	34930720.17	0.1949	0.0580
Mercury	90929-08-21 18:58 G	34932428.19	34932428.29	34932428.38	0.1586	0.0896
Moon	90929-11-14 03:50 G	34932512.49	34932512.66	34932512.83	0.1625	0.0713
Earth	90929-11-14 11:02 G	34932512.77	34932512.96	34932513.14	0.1625	0.0495 *
Mercury	90931-07-27 19:55 G	34933133.22	34933133.33	34933133.45	0.1588	0.0487
Mercury	90934-05-09 04:19 G	34934149.52	34934149.68	34934149.83	0.1950	0.0700
Mercury	90939-01-12 06:43 G	34935858.71	34935858.78	34935858.85	0.1586	0.1223
Mercury	90940-12-17 07:41 G	34936563.70	34936563.82	34936563.94	0.1587	0.0146
Mercury	90942-11-22 09:36 G	34937268.88	34937268.90	34937268.92	0.1592	0.1563
Venus	90947-06-06 17:31 G	34938926.12	34938926.23	34938926.35	0.1943	0.1440
Mercury	90948-06-03 18:29 G	34939289.25	34939289.27	34939289.29	0.1586	0.1553
Venus	90950-03-09 13:41 G	34939932.95	34939933.07	34939933.18	0.1598	0.1200
Mercury	90950-05-09 19:26 G	34939994.19	34939994.31	34939994.42	0.1587	0.0204
Mercury	90952-04-13 20:53 G	34940699.30	34940699.37	34940699.45	0.1591	0.1212
Mercury	90955-01-26 20:24 G	34941717.31	34941717.35	34941717.39	0.1947	0.1880
Mercury	90959-09-30 06:58 G	34943424.68	34943424.79	34943424.90	0.1586	0.0535
Mercury	90961-09-04 08:24 G	34944129.75	34944129.85	34944129.95	0.1589	0.0862
Mercury	90964-06-17 12:58 G	34945146.88	34945147.04	34945147.19	0.1949	0.0646
Mercury	90969-02-19 18:43 G	34946855.19	34946855.28	34946855.38	0.1586	0.0866
Mercury	90971-01-25 19:55 G	34947560.22	34947560.33	34947560.44	0.1588	0.0513
Mercury	90973-11-07 05:02 G	34948576.55	34948576.71	34948576.87	0.1950	0.0628
Mercury	90978-07-13 06:43 G	34950285.70	34950285.78	34950285.85	0.1586	0.1195
Mercury	90980-06-17 07:41 G	34950990.70	34950990.82	34950990.93	0.1587	0.0177
Venus	90982-03-08 06:14 G	34951619.59	34951619.76	34951619.92	0.1595	0.0581

Mercury	90983-03-29 20:53 G	34952006.34	34952006.37	34952006.39	0.1951	0.1922
Mercury	90987-12-03 18:29 G	34953716.24	34953716.27	34953716.30	0.1586	0.1521
Mercury	90989-11-07 19:12 G	34954421.19	34954421.30	34954421.42	0.1587	0.0177
Mercury	90991-10-13 20:53 G	34955126.30	34955126.37	34955126.45	0.1591	0.1243
Mercury	90999-03-31 06:58 G	34957851.68	34957851.79	34957851.91	0.1586	0.0503

92ND MILLENNIUM CE

This is a list of transits visible from Mars in the 92nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	91001-03-06 08:24 G		34958556.75	34958556.85	34958556.95	0.1589	0.0893	
Mercury	91003-12-18 13:41 G		34959573.92	34959574.07	34959574.23	0.1949	0.0728	
Mercury	91008-08-21 18:43 G		34961282.18	34961282.28	34961282.38	0.1586	0.0836	
Moon	91008-11-17 11:17 G		34961369.88	34961369.97	34961370.07	0.1628	0.1421	
Earth	91008-11-17 15:07 G		34961370.06	34961370.13	34961370.21	0.1628	0.1485	*
Mercury	91010-07-27 19:55 G		34961987.22	34961987.33	34961987.44	0.1588	0.0550	
Venus	91013-04-03 19:41 G		34962968.16	34962968.32	34962968.48	0.1941	0.0695	
Mercury	91013-05-09 06:00 G		34963003.59	34963003.75	34963003.91	0.1950	0.0544	
Earth	91015-05-18 23:17 G		34963743.28	34963743.47	34963743.66	0.1912	0.0439	
Moon	91015-05-19 07:26 G		34963743.63	34963743.81	34963744.00	0.1911	0.0384	*
Venus	91016-01-06 02:10 G		34963975.50	34963975.59	34963975.68	0.1600	0.1364	
Mercury	91018-01-12 06:43 G		34964712.70	34964712.78	34964712.85	0.1586	0.1168	
Mercury	91019-12-18 07:26 G		34965417.70	34965417.81	34965417.93	0.1587	0.0212	
Mercury	91022-09-28 21:22 G		34966433.34	34966433.39	34966433.44	0.1951	0.1858	

Mercury	91027-06-04	18:29	G	34968143.23	34968143.27	34968143.31	0.1586	0.1492
Mercury	91029-05-09	19:12	G	34968848.19	34968848.30	34968848.42	0.1587	0.0144
Mercury	91031-04-14	20:53	G	34969553.30	34969553.37	34969553.44	0.1590	0.1271
Mercury	91038-09-30	06:58	G	34972278.68	34972278.79	34972278.90	0.1586	0.0472
Mercury	91040-09-04	08:24	G	34972983.76	34972983.85	34972983.95	0.1589	0.0926
Mercury	91043-06-18	14:53	G	34974000.97	34974001.12	34974001.27	0.1949	0.0815
Venus	91048-01-04	18:58	G	34975662.12	34975662.29	34975662.46	0.1596	0.0430
Mercury	91048-02-20	18:43	G	34975709.18	34975709.28	34975709.38	0.1586	0.0805
Mercury	91050-01-25	19:55	G	34976414.22	34976414.33	34976414.44	0.1588	0.0578
Mercury	91052-11-07	06:43	G	34977430.62	34977430.78	34977430.94	0.1950	0.0468
Mercury	91057-07-13	06:43	G	34979139.70	34979139.78	34979139.86	0.1586	0.1134
Mercury	91059-06-18	07:41	G	34979844.70	34979844.82	34979844.93	0.1587	0.0240
Mercury	91062-03-29	22:19	G	34980860.37	34980860.43	34980860.50	0.1951	0.1771
Mercury	91066-12-03	18:29	G	34982570.23	34982570.27	34982570.31	0.1586	0.1466
Mercury	91068-11-07	19:12	G	34983275.19	34983275.30	34983275.42	0.1586	0.0114
Mercury	91070-10-13	20:53	G	34983980.31	34983980.37	34983980.44	0.1590	0.1308
Mercury	91078-03-31	06:58	G	34986705.68	34986705.79	34986705.90	0.1586	0.0444
Venus	91079-01-29	21:50	G	34987010.24	34987010.41	34987010.58	0.1940	0.0036
Mercury	91080-03-05	08:24	G	34987410.76	34987410.85	34987410.94	0.1589	0.0955
Venus	91081-11-02	14:38	G	34988018.06	34988018.11	34988018.16	0.1601	0.1520
Mercury	91082-12-17	15:22	G	34988427.99	34988428.14	34988428.29	0.1949	0.0872
Mercury	91087-08-21	18:43	G	34990136.18	34990136.28	34990136.38	0.1586	0.0774
Mercury	91089-07-26	19:55	G	34990841.22	34990841.33	34990841.44	0.1588	0.0608
Mercury	91092-05-08	07:41	G	34991857.66	34991857.82	34991857.98	0.1951	0.0390
Mercury	91097-01-11	06:29	G	34993566.69	34993566.77	34993566.86	0.1586	0.1108
Mercury	91098-12-17	07:41	G	34994271.70	34994271.82	34994271.93	0.1587	0.0272
Mercury	91101-09-28	23:31	G	34995287.40	34995287.48	34995287.56	0.1951	0.1681
Mercury	91106-06-04	18:29	G	34996997.22	34996997.27	34996997.31	0.1586	0.1433
Mercury	91108-05-09	19:12	G	34997702.18	34997702.30	34997702.42	0.1587	0.0080
Mercury	91110-04-14	20:53	G	34998407.31	34998407.37	34998407.43	0.1590	0.1339

Venus	91113-11-02 07:12 G	34999704.63	34999704.80	34999704.98	0.1597	0.0271
Mercury	91117-09-30 06:58 G	35001132.68	35001132.79	35001132.90	0.1586	0.0409
Mercury	91119-09-05 08:24 G	35001837.76	35001837.85	35001837.94	0.1589	0.0988
Mercury	91122-06-18 16:19 G	35002855.04	35002855.18	35002855.33	0.1949	0.0962
Mercury	91127-02-20 18:43 G	35004563.18	35004563.28	35004563.38	0.1586	0.0745
Mercury	91129-01-25 19:55 G	35005268.22	35005268.33	35005268.44	0.1588	0.0642
Mercury	91131-11-08 08:38 G	35006284.69	35006284.86	35006285.02	0.1950	0.0310
Moon	91134-11-15 16:19 G	35007388.10	35007388.18	35007388.27	0.1618	0.1448
Mercury	91136-07-13 06:29 G	35007993.69	35007993.77	35007993.86	0.1586	0.1077
Mercury	91138-06-18 07:26 G	35008698.70	35008698.81	35008698.93	0.1587	0.0298
Mercury	91141-03-30 00:00 G	35009714.41	35009714.50	35009714.59	0.1951	0.1625
Venus	91144-11-27 00:00 G	35011052.34	35011052.50	35011052.66	0.1938	0.0765
Mercury	91145-12-03 18:29 G	35011424.21	35011424.27	35011424.32	0.1586	0.1405
Mercury	91147-11-08 19:12 G	35012129.18	35012129.30	35012129.42	0.1587	0.0047
Mercury	91149-10-13 20:53 G	35012834.31	35012834.37	35012834.43	0.1590	0.1367
Mercury	91157-03-31 06:58 G	35015559.67	35015559.79	35015559.90	0.1586	0.0380
Mercury	91159-03-06 08:24 G	35016264.76	35016264.85	35016264.94	0.1589	0.1020
Mercury	91161-12-17 17:17 G	35017282.09	35017282.22	35017282.36	0.1949	0.1044
Mercury	91166-08-21 18:43 G	35018990.18	35018990.28	35018990.38	0.1586	0.0714
Mercury	91168-07-26 19:55 G	35019695.22	35019695.33	35019695.44	0.1588	0.0672
Mercury	91171-05-09 09:22 G	35020711.73	35020711.89	35020712.06	0.1950	0.0232
Mercury	91176-01-12 06:29 G	35022420.69	35022420.77	35022420.86	0.1586	0.1046
Mercury	91177-12-17 07:41 G	35023125.70	35023125.82	35023125.93	0.1587	0.0335
Venus	91179-08-30 20:10 G	35023747.16	35023747.34	35023747.51	0.1598	0.0118
Mercury	91180-09-28 01:12 G	35024141.45	35024141.55	35024141.65	0.1951	0.1529
Mercury	91185-06-03 18:14 G	35025851.21	35025851.26	35025851.32	0.1586	0.1377
Mercury	91187-05-09 19:12 G	35026556.18	35026556.30	35026556.42	0.1586	0.0018
Mercury	91189-04-13 20:53 G	35027261.32	35027261.37	35027261.43	0.1590	0.1404
Mercury	91196-09-29 06:58 G	35029986.67	35029986.79	35029986.90	0.1586	0.0355
Mercury	91198-09-04 08:24 G	35030691.76	35030691.85	35030691.94	0.1589	0.1050

Mercury	91201-06-17 18:00 G	35031709.11	35031709.25	35031709.38	0.1949	0.1106
Mercury	91206-02-19 18:43 G	35033417.17	35033417.28	35033417.38	0.1586	0.0684
Mercury	91208-01-25 19:55 G	35034122.22	35034122.33	35034122.43	0.1588	0.0702
Venus	91210-09-24 02:10 G	35035094.48	35035094.59	35035094.69	0.1936	0.1497
Mercury	91210-11-07 10:19 G	35035138.76	35035138.93	35035139.09	0.1951	0.0158
Earth	91213-11-17 13:41 G	35036244.88	35036245.07	35036245.26	0.1621	0.0260
Moon	91213-11-17 16:05 G	35036244.99	35036245.17	35036245.35	0.1621	0.0221 *
Mercury	91215-07-13 06:29 G	35036847.68	35036847.77	35036847.86	0.1586	0.1016
Mercury	91217-06-17 07:26 G	35037552.70	35037552.81	35037552.93	0.1587	0.0365
Mercury	91220-03-29 02:10 G	35038568.48	35038568.59	35038568.70	0.1951	0.1447
Mercury	91224-12-02 18:14 G	35040278.20	35040278.26	35040278.32	0.1586	0.1345
Mercury	91226-11-07 19:12 G	35040983.18	35040983.30	35040983.42	0.1586	0.0021
Mercury	91228-10-12 20:53 G	35041688.32	35041688.37	35041688.42	0.1590	0.1435
Mercury	91236-03-30 06:58 G	35044413.67	35044413.79	35044413.90	0.1586	0.0319
Mercury	91238-03-05 08:24 G	35045118.76	35045118.85	35045118.94	0.1589	0.1083
Mercury	91240-12-16 18:43 G	35046136.16	35046136.28	35046136.41	0.1949	0.1189
Venus	91245-06-27 08:38 G	35047789.69	35047789.86	35047790.04	0.1599	0.0054
Mercury	91245-08-20 18:43 G	35047844.17	35047844.28	35047844.38	0.1586	0.0655
Mercury	91247-07-26 19:55 G	35048549.23	35048549.33	35048549.43	0.1588	0.0737
Mercury	91250-05-08 11:17 G	35049565.80	35049565.97	35049566.13	0.1950	0.0082
Mercury	91255-01-11 06:29 G	35051274.68	35051274.77	35051274.86	0.1586	0.0987
Mercury	91256-12-16 07:26 G	35051979.70	35051979.81	35051979.93	0.1587	0.0390
Mercury	91259-09-28 02:38 G	35052995.49	35052995.61	35052995.73	0.1951	0.1383
Mercury	91264-06-02 18:14 G	35054705.20	35054705.26	35054705.33	0.1586	0.1316
Mercury	91266-05-08 19:12 G	35055410.18	35055410.30	35055410.42	0.1586	0.0053
Mercury	91268-04-12 20:53 G	35056115.33	35056115.37	35056115.41	0.1590	0.1463
Mercury	91275-09-29 06:58 G	35058840.67	35058840.79	35058840.90	0.1586	0.0291
Mercury	91277-09-03 08:24 G	35059545.77	35059545.85	35059545.93	0.1589	0.1116
Mercury	91280-06-16 19:55 G	35060563.21	35060563.33	35060563.46	0.1949	0.1278
Mercury	91285-02-18 18:43 G	35062271.17	35062271.28	35062271.39	0.1586	0.0624

Mercury	91287-01-24 19:55 G	35062976.23	35062976.33	35062976.43	0.1588	0.0767
Mercury	91289-11-06 12:00 G	35063992.83	35063993.00	35063993.16	0.1950	0.0018
Mercury	91294-07-12 06:29 G	35065701.68	35065701.77	35065701.86	0.1585	0.0955
Mercury	91296-06-16 07:26 G	35066406.70	35066406.81	35066406.93	0.1587	0.0425
Mercury	91299-03-29 03:50 G	35067422.53	35067422.66	35067422.78	0.1951	0.1295
Moon	91299-05-19 04:48 G	35067473.54	35067473.70	35067473.87	0.1920	0.1177
Earth	91299-05-19 08:38 G	35067473.69	35067473.86	35067474.04	0.1919	0.0792 *
Mercury	91303-12-03 18:14 G	35069132.19	35069132.26	35069132.33	0.1586	0.1288
Mercury	91305-11-07 19:12 G	35069837.18	35069837.30	35069837.42	0.1586	0.0081
Mercury	91307-10-13 20:53 G	35070542.34	35070542.37	35070542.41	0.1590	0.1501
Venus	91308-07-22 05:31 G	35070824.68	35070824.73	35070824.78	0.1940	0.1838
Venus	91311-04-25 21:07 G	35071832.20	35071832.38	35071832.55	0.1600	0.0212
Mercury	91315-03-31 06:43 G	35073267.67	35073267.78	35073267.90	0.1586	0.0264
Mercury	91317-03-05 08:24 G	35073972.77	35073972.85	35073972.93	0.1589	0.1146
Mercury	91319-12-17 20:24 G	35074990.23	35074990.35	35074990.47	0.1949	0.1332
Mercury	91324-08-20 18:43 G	35076698.17	35076698.28	35076698.39	0.1586	0.0593
Mercury	91326-07-26 19:55 G	35077403.23	35077403.33	35077403.43	0.1588	0.0798
Mercury	91329-05-08 12:58 G	35078419.87	35078420.04	35078420.20	0.1951	0.0089
Mercury	91334-01-11 06:29 G	35080128.67	35080128.77	35080128.86	0.1586	0.0928
Mercury	91335-12-17 07:26 G	35080833.70	35080833.81	35080833.93	0.1587	0.0456
Mercury	91338-09-28 04:48 G	35081849.57	35081849.70	35081849.83	0.1951	0.1207
Venus	91343-04-24 13:55 G	35083519.06	35083519.08	35083519.11	0.1596	0.1580
Mercury	91343-06-03 18:14 G	35083559.19	35083559.26	35083559.33	0.1586	0.1255
Mercury	91345-05-08 19:12 G	35084264.18	35084264.30	35084264.42	0.1586	0.0116
Mercury	91347-04-13 20:53 G	35084969.34	35084969.37	35084969.40	0.1590	0.1531
Mercury	91352-10-24 06:14 G	35086989.75	35086989.76	35086989.76	0.1586	0.1585
Mercury	91354-09-29 06:58 G	35087694.67	35087694.79	35087694.90	0.1586	0.0232
Mercury	91356-09-03 08:24 G	35088399.77	35088399.85	35088399.93	0.1589	0.1179
Mercury	91359-06-17 21:22 G	35089417.28	35089417.39	35089417.50	0.1950	0.1422
Mercury	91364-02-19 18:29 G	35091125.17	35091125.27	35091125.38	0.1585	0.0568

Mercury	91366-01-24 19:55 G	35091830.23	35091830.33	35091830.43	0.1588	0.0831
Mercury	91368-11-06 13:41 G	35092846.91	35092847.07	35092847.24	0.1951	0.0160
Mercury	91373-07-12 06:29 G	35094555.67	35094555.77	35094555.86	0.1585	0.0898
Venus	91374-05-19 08:24 G	35094866.71	35094866.85	35094866.99	0.1939	0.1140
Mercury	91375-06-17 07:26 G	35095260.70	35095260.81	35095260.92	0.1587	0.0482
Venus	91377-02-20 09:50 G	35095874.74	35095874.91	35095875.08	0.1601	0.0368
Mercury	91378-03-29 05:17 G	35096276.58	35096276.72	35096276.85	0.1952	0.1149
Mercury	91382-12-02 18:14 G	35097986.19	35097986.26	35097986.33	0.1586	0.1227
Mercury	91384-11-06 19:12 G	35098691.18	35098691.30	35098691.41	0.1586	0.0148
Mercury	91386-10-12 20:53 G	35099396.35	35099396.37	35099396.39	0.1590	0.1560
Mercury	91392-04-24 06:00 G	35101416.74	35101416.75	35101416.77	0.1586	0.1556
Mercury	91394-03-30 06:43 G	35102121.67	35102121.78	35102121.90	0.1586	0.0203
Mercury	91396-03-04 08:24 G	35102826.77	35102826.85	35102826.92	0.1589	0.1211
Mercury	91398-12-16 22:19 G	35103844.33	35103844.43	35103844.54	0.1949	0.1503
Mercury	91403-08-21 18:43 G	35105552.17	35105552.28	35105552.39	0.1585	0.0535
Mercury	91405-07-26 19:55 G	35106257.23	35106257.33	35106257.43	0.1588	0.0862
Mercury	91408-05-08 14:24 G	35107273.94	35107274.10	35107274.27	0.1951	0.0242
Venus	91409-02-20 02:38 G	35107561.53	35107561.61	35107561.69	0.1597	0.1420
Mercury	91413-01-11 06:14 G	35108982.67	35108982.76	35108982.86	0.1585	0.0868
Mercury	91414-12-17 07:26 G	35109687.70	35109687.81	35109687.92	0.1587	0.0518
Mercury	91417-09-28 06:29 G	35110703.63	35110703.77	35110703.91	0.1952	0.1054
Moon	91418-11-18 10:34 G	35111119.77	35111119.94	35111120.11	0.1614	0.0866
Earth	91418-11-18 13:26 G	35111119.90	35111120.06	35111120.22	0.1614	0.0895 *
Mercury	91422-06-03 18:14 G	35112413.18	35112413.26	35112413.33	0.1585	0.1200
Mercury	91424-05-08 19:12 G	35113118.18	35113118.30	35113118.41	0.1586	0.0179
Mercury	91431-10-25 06:00 G	35115843.72	35115843.75	35115843.78	0.1586	0.1526
Mercury	91433-09-29 06:43 G	35116548.66	35116548.78	35116548.90	0.1586	0.0169
Mercury	91435-09-04 08:24 G	35117253.78	35117253.85	35117253.92	0.1589	0.1242
Mercury	91438-06-17 22:48 G	35118271.36	35118271.45	35118271.55	0.1949	0.1563
Venus	91440-03-16 10:19 G	35118908.76	35118908.93	35118909.10	0.1937	0.0398

Venus	91442-12-19 22:05 G	35119917.25	35119917.42	35119917.59	0.1603	0.0537
Mercury	91443-02-19 18:29 G	35119979.16	35119979.27	35119979.39	0.1585	0.0505
Mercury	91445-01-24 19:55 G	35120684.23	35120684.33	35120684.42	0.1588	0.0893
Mercury	91447-11-07 15:22 G	35121700.98	35121701.14	35121701.31	0.1951	0.0318
Mercury	91452-07-12 06:14 G	35123409.67	35123409.76	35123409.86	0.1585	0.0838
Mercury	91454-06-17 07:26 G	35124114.70	35124114.81	35124114.92	0.1587	0.0549
Mercury	91457-03-29 07:12 G	35125130.66	35125130.80	35125130.95	0.1951	0.0975
Mercury	91461-12-02 18:14 G	35126840.18	35126840.26	35126840.33	0.1585	0.1167
Mercury	91463-11-07 19:12 G	35127545.18	35127545.30	35127545.41	0.1586	0.0214
Mercury	91471-04-25 06:00 G	35130270.72	35130270.75	35130270.79	0.1586	0.1497
Mercury	91473-03-30 06:43 G	35130975.67	35130975.78	35130975.90	0.1585	0.0141
Venus	91474-12-18 15:07 G	35131604.02	35131604.13	35131604.24	0.1598	0.1264
Mercury	91475-03-05 08:24 G	35131680.78	35131680.85	35131680.92	0.1589	0.1275
Mercury	91477-12-16 23:46 G	35132698.41	35132698.49	35132698.58	0.1950	0.1646
Mercury	91482-08-20 18:29 G	35134406.16	35134406.27	35134406.38	0.1585	0.0474
Mercury	91484-07-25 19:55 G	35135111.23	35135111.33	35135111.42	0.1588	0.0926
Mercury	91487-05-08 16:19 G	35136128.02	35136128.18	35136128.34	0.1951	0.0393
Mercury	91492-01-11 06:14 G	35137836.66	35137836.76	35137836.86	0.1585	0.0808
Mercury	91493-12-16 07:26 G	35138541.70	35138541.81	35138541.92	0.1587	0.0576
Mercury	91496-09-27 07:55 G	35139557.68	35139557.83	35139557.97	0.1952	0.0909
Earth	91497-11-20 17:02 G	35139977.06	35139977.21	35139977.36	0.1617	0.1011
Moon	91497-11-20 21:50 G	35139977.26	35139977.41	35139977.56	0.1617	0.1071 *
Mercury	91501-06-03 18:00 G	35141267.17	35141267.25	35141267.33	0.1585	0.1140
Mercury	91503-05-09 18:58 G	35141972.18	35141972.29	35141972.41	0.1586	0.0242
Venus	91506-01-12 12:43 G	35142950.86	35142951.03	35142951.20	0.1935	0.0318
Venus	91508-10-17 10:48 G	35143959.79	35143959.95	35143960.11	0.1604	0.0696
Mercury	91510-10-25 06:00 G	35144697.71	35144697.75	35144697.79	0.1586	0.1467
Mercury	91512-09-29 06:43 G	35145402.66	35145402.78	35145402.90	0.1586	0.0106
Mercury	91514-09-04 08:24 G	35146107.78	35146107.85	35146107.91	0.1589	0.1308
Mercury	91517-06-18 00:58 G	35147125.47	35147125.54	35147125.61	0.1950	0.1734

Mercury	91522-02-19 18:29 G	35148833.16	35148833.27	35148833.39	0.1585	0.0442
Mercury	91524-01-25 19:55 G	35149538.23	35149538.33	35149538.42	0.1588	0.0957
Mercury	91526-11-07 17:02 G	35150555.05	35150555.21	35150555.37	0.1951	0.0469
Mercury	91531-07-13 06:14 G	35152263.66	35152263.76	35152263.86	0.1585	0.0776
Mercury	91533-06-17 07:26 G	35152968.70	35152968.81	35152968.92	0.1587	0.0611
Mercury	91536-03-29 08:53 G	35153984.72	35153984.87	35153985.02	0.1952	0.0822
Venus	91540-10-16 03:36 G	35155646.52	35155646.65	35155646.78	0.1599	0.1102
Mercury	91540-12-02 18:00 G	35155694.17	35155694.25	35155694.34	0.1585	0.1111
Mercury	91542-11-07 18:58 G	35156399.18	35156399.29	35156399.41	0.1586	0.0269
Mercury	91550-04-25 06:00 G	35159124.70	35159124.75	35159124.80	0.1586	0.1437
Mercury	91552-03-30 06:43 G	35159829.66	35159829.78	35159829.90	0.1585	0.0076
Mercury	91554-03-05 08:24 G	35160534.78	35160534.85	35160534.91	0.1589	0.1338
Mercury	91556-12-17 01:12 G	35161552.49	35161552.55	35161552.61	0.1950	0.1787
Mercury	91561-08-20 18:29 G	35163260.16	35163260.27	35163260.38	0.1585	0.0411
Mercury	91563-07-26 19:55 G	35163965.23	35163965.33	35163965.42	0.1588	0.0989
Mercury	91566-05-08 18:00 G	35164982.09	35164982.25	35164982.41	0.1951	0.0550
Mercury	91571-01-11 06:14 G	35166690.66	35166690.76	35166690.86	0.1585	0.0747
Venus	91571-11-09 14:53 G	35166992.98	35166993.12	35166993.27	0.1932	0.1036
Mercury	91572-12-16 07:26 G	35167395.70	35167395.81	35167395.92	0.1587	0.0642
Venus	91574-08-14 23:02 G	35168002.31	35168002.46	35168002.61	0.1605	0.0864
Mercury	91575-09-28 09:50 G	35168411.76	35168411.91	35168412.07	0.1952	0.0737
Mercury	91580-06-02 18:00 G	35170121.17	35170121.25	35170121.34	0.1585	0.1078
Mercury	91582-05-08 18:58 G	35170826.18	35170826.29	35170826.41	0.1586	0.0299
Mercury	91589-10-24 06:00 G	35173551.70	35173551.75	35173551.80	0.1586	0.1409
Mercury	91591-09-29 06:43 G	35174256.66	35174256.78	35174256.90	0.1585	0.0043
Mercury	91593-09-03 08:24 G	35174961.79	35174961.85	35174961.90	0.1589	0.1372
Mercury	91596-06-17 02:24 G	35175979.56	35175979.60	35175979.64	0.1950	0.1877
Mercury	91601-02-18 18:29 G	35177687.15	35177687.27	35177687.38	0.1585	0.0383
Mercury	91603-01-24 19:55 G	35178392.24	35178392.33	35178392.42	0.1587	0.1021
Mercury	91605-11-06 18:43 G	35179409.12	35179409.28	35179409.43	0.1951	0.0622

Venus	91606-08-13 16:19 G	35179689.04	35179689.18	35179689.32	0.1601	0.0946
Mercury	91610-07-12 06:14 G	35181117.65	35181117.76	35181117.86	0.1585	0.0717
Mercury	91612-06-16 07:26 G	35181822.70	35181822.81	35181822.91	0.1587	0.0671
Mercury	91615-03-29 10:19 G	35182838.78	35182838.93	35182839.09	0.1952	0.0677
Mercury	91619-12-02 18:00 G	35184548.17	35184548.25	35184548.34	0.1585	0.1049
Mercury	91621-11-06 18:58 G	35185253.18	35185253.29	35185253.41	0.1586	0.0331
Mercury	91629-04-24 06:00 G	35187978.69	35187978.75	35187978.80	0.1585	0.1380
Mercury	91631-03-30 06:43 G	35188683.66	35188683.78	35188683.90	0.1585	0.0019
Mercury	91633-03-04 08:24 G	35189388.79	35189388.85	35189388.90	0.1589	0.1404
Venus	91637-09-05 17:17 G	35191035.15	35191035.22	35191035.29	0.1930	0.1751
Venus	91640-06-11 11:31 G	35192044.84	35192044.98	35192045.11	0.1607	0.1028
Mercury	91640-08-19 18:29 G	35192114.15	35192114.27	35192114.38	0.1585	0.0349
Mercury	91642-07-25 19:55 G	35192819.24	35192819.33	35192819.41	0.1588	0.1053
Mercury	91645-05-07 19:26 G	35193836.16	35193836.31	35193836.46	0.1951	0.0701
Mercury	91650-01-10 06:14 G	35195544.65	35195544.76	35195544.86	0.1585	0.0686
Mercury	91651-12-16 07:26 G	35196249.70	35196249.81	35196249.92	0.1587	0.0706
Mercury	91654-09-27 11:31 G	35197265.83	35197265.98	35197266.14	0.1952	0.0583
Mercury	91659-06-02 18:00 G	35198975.16	35198975.25	35198975.34	0.1585	0.1021
Mercury	91661-05-07 18:58 G	35199680.17	35199680.29	35199680.41	0.1586	0.0359
Mercury	91664-02-17 02:53 G	35200695.59	35200695.62	35200695.65	0.1952	0.1914
Mercury	91668-10-23 05:46 G	35202405.69	35202405.74	35202405.80	0.1586	0.1351
Mercury	91670-09-28 06:43 G	35203110.66	35203110.78	35203110.90	0.1585	0.0039
Venus	91672-06-10 04:34 G	35203731.54	35203731.69	35203731.85	0.1602	0.0780
Mercury	91672-09-02 08:10 G	35203815.80	35203815.84	35203815.89	0.1589	0.1435
Mercury	91680-02-18 18:29 G	35206541.15	35206541.27	35206541.38	0.1585	0.0321
Mercury	91682-01-23 19:55 G	35207246.24	35207246.33	35207246.41	0.1588	0.1085
Mercury	91684-11-05 20:24 G	35208263.20	35208263.35	35208263.50	0.1952	0.0783
Mercury	91689-07-11 06:14 G	35209971.65	35209971.76	35209971.86	0.1585	0.0657
Mercury	91691-06-16 07:26 G	35210676.70	35210676.81	35210676.91	0.1587	0.0737
Mercury	91694-03-28 12:29 G	35211692.86	35211693.02	35211693.18	0.1952	0.0507

Mercury	91698-12-01 18:00 G	35213402.16	35213402.25	35213402.34	0.1585	0.0988
Mercury	91700-11-06 18:58 G	35214107.18	35214107.29	35214107.41	0.1586	0.0392
Moon	91702-11-21 11:31 G	35214851.80	35214851.98	35214852.17	0.1610	0.0161
Earth	91702-11-21 17:02 G	35214852.02	35214852.21	35214852.40	0.1611	0.0131 *
Mercury	91703-08-19 03:50 G	35215122.61	35215122.66	35215122.72	0.1952	0.1823
Venus	91706-04-09 23:31 G	35216087.37	35216087.48	35216087.60	0.1608	0.1205
Mercury	91708-04-24 05:46 G	35216832.68	35216832.74	35216832.80	0.1585	0.1322
Mercury	91710-03-30 06:43 G	35217537.66	35217537.78	35217537.90	0.1585	0.0057
Mercury	91712-03-04 08:24 G	35218242.80	35218242.85	35218242.89	0.1589	0.1468
Mercury	91719-08-20 18:29 G	35220968.15	35220968.27	35220968.38	0.1585	0.0296
Mercury	91721-07-25 19:55 G	35221673.24	35221673.33	35221673.41	0.1587	0.1118
Mercury	91724-05-07 21:07 G	35222690.23	35222690.38	35222690.53	0.1951	0.0852
Mercury	91729-01-10 06:00 G	35224398.65	35224398.75	35224398.86	0.1585	0.0629
Mercury	91730-12-16 07:26 G	35225103.70	35225103.81	35225103.91	0.1586	0.0767
Mercury	91733-09-27 12:58 G	35226119.88	35226120.04	35226120.20	0.1952	0.0437
Venus	91735-07-04 19:55 G	35226765.23	35226765.33	35226765.44	0.1935	0.1533
Venus	91738-04-08 17:02 G	35227774.04	35227774.21	35227774.37	0.1603	0.0615
Mercury	91738-06-02 18:00 G	35227829.16	35227829.25	35227829.34	0.1585	0.0960
Mercury	91740-05-07 18:58 G	35228534.17	35228534.29	35228534.40	0.1586	0.0423
Mercury	91743-02-17 04:48 G	35229549.63	35229549.70	35229549.78	0.1952	0.1739
Mercury	91747-10-24 05:46 G	35231259.68	35231259.74	35231259.81	0.1585	0.1290
Mercury	91749-09-28 06:43 G	35231964.66	35231964.78	35231964.89	0.1585	0.0089
Mercury	91751-09-03 08:24 G	35232669.81	35232669.85	35232669.88	0.1589	0.1501
Mercury	91759-02-18 18:29 G	35235395.15	35235395.27	35235395.38	0.1585	0.0265
Mercury	91761-01-23 19:41 G	35236100.24	35236100.32	35236100.41	0.1587	0.1149
Mercury	91763-11-06 21:50 G	35237117.27	35237117.41	35237117.56	0.1951	0.0932
Mercury	91768-07-11 06:00 G	35238825.65	35238825.75	35238825.86	0.1585	0.0598
Mercury	91770-06-16 07:26 G	35239530.70	35239530.81	35239530.91	0.1586	0.0801
Venus	91772-02-05 12:00 G	35240129.91	35240130.00	35240130.09	0.1610	0.1372
Mercury	91773-03-28 14:10 G	35240546.92	35240547.09	35240547.25	0.1952	0.0355

Mercury	91777-12-01 18:00 G	35242256.15	35242256.25	35242256.34	0.1585	0.0933
Mercury	91779-11-06 18:58 G	35242961.18	35242961.29	35242961.40	0.1586	0.0454
Mercury	91782-08-18 05:31 G	35243976.65	35243976.73	35243976.81	0.1952	0.1672
Mercury	91787-04-24 05:46 G	35245686.67	35245686.74	35245686.81	0.1585	0.1261
Mercury	91789-03-29 06:29 G	35246391.66	35246391.77	35246391.89	0.1585	0.0123
Mercury	91791-03-04 08:10 G	35247096.81	35247096.84	35247096.87	0.1588	0.1530
Mercury	91798-08-19 18:14 G	35249822.15	35249822.26	35249822.38	0.1585	0.0234
Mercury	91800-07-25 19:41 G	35250527.25	35250527.32	35250527.40	0.1587	0.1180
Venus	91801-05-01 23:02 G	35250807.31	35250807.46	35250807.62	0.1933	0.0843
Mercury	91803-05-08 22:48 G	35251544.31	35251544.45	35251544.59	0.1952	0.1015
Venus	91804-02-05 05:31 G	35251816.56	35251816.73	35251816.90	0.1605	0.0455
Mercury	91808-01-11 06:00 G	35253252.64	35253252.75	35253252.86	0.1585	0.0566
Mercury	91809-12-16 07:26 G	35253957.71	35253957.81	35253957.91	0.1586	0.0833
Mercury	91812-09-27 14:53 G	35254973.96	35254974.12	35254974.29	0.1952	0.0271
Mercury	91817-06-02 18:00 G	35256683.15	35256683.25	35256683.34	0.1585	0.0899
Mercury	91819-05-08 18:58 G	35257388.18	35257388.29	35257388.40	0.1586	0.0486
Mercury	91822-02-17 06:29 G	35258403.67	35258403.77	35258403.86	0.1952	0.1591
Mercury	91826-10-24 05:46 G	35260113.67	35260113.74	35260113.81	0.1585	0.1233
Mercury	91828-09-28 06:43 G	35260818.66	35260818.78	35260818.89	0.1585	0.0154
Mercury	91830-09-03 08:24 G	35261523.83	35261523.85	35261523.86	0.1588	0.1566
Mercury	91836-03-15 17:31 G	35263544.22	35263544.23	35263544.25	0.1586	0.1562
Venus	91837-12-04 00:00 G	35264172.45	35264172.50	35264172.54	0.1612	0.1554
Mercury	91838-02-18 18:14 G	35264249.14	35264249.26	35264249.38	0.1585	0.0200
Mercury	91840-01-24 19:41 G	35264954.25	35264954.32	35264954.40	0.1587	0.1213
Mercury	91842-11-06 23:31 G	35265971.35	35265971.48	35265971.62	0.1951	0.1083
Mercury	91847-07-12 06:00 G	35267679.64	35267679.75	35267679.86	0.1585	0.0535
Mercury	91849-06-16 07:12 G	35268384.70	35268384.80	35268384.90	0.1586	0.0860
Mercury	91852-03-28 15:22 G	35269400.98	35269401.14	35269401.31	0.1953	0.0213
Mercury	91856-12-01 17:46 G	35271110.15	35271110.24	35271110.34	0.1585	0.0872
Mercury	91858-11-06 18:58 G	35271815.18	35271815.29	35271815.40	0.1586	0.0518

Mercury	91861-08-18 07:41 G	35272830.71	35272830.82	35272830.92	0.1952	0.1496
Mercury	91866-04-24 05:46 G	35274540.66	35274540.74	35274540.81	0.1585	0.1202
Venus	91867-02-27 00:58 G	35274849.37	35274849.54	35274849.71	0.1930	0.0109
Mercury	91868-03-29 06:29 G	35275245.66	35275245.77	35275245.89	0.1585	0.0180
Venus	91869-12-02 17:31 G	35275859.06	35275859.23	35275859.41	0.1606	0.0282
Mercury	91875-09-14 17:31 G	35277971.20	35277971.23	35277971.26	0.1586	0.1531
Mercury	91877-08-19 18:14 G	35278676.15	35278676.26	35278676.38	0.1585	0.0168
Mercury	91879-07-25 19:41 G	35279381.25	35279381.32	35279381.40	0.1587	0.1245
Mercury	91882-05-08 00:14 G	35280398.38	35280398.51	35280398.65	0.1952	0.1163
Mercury	91887-01-10 06:00 G	35282106.64	35282106.75	35282106.86	0.1585	0.0505
Mercury	91888-12-15 07:12 G	35282811.71	35282811.80	35282811.90	0.1586	0.0897
Mercury	91891-09-27 16:34 G	35283828.03	35283828.19	35283828.36	0.1952	0.0122
Mercury	91896-06-01 17:46 G	35285537.14	35285537.24	35285537.34	0.1585	0.0842
Mercury	91898-05-07 18:58 G	35286242.17	35286242.29	35286242.40	0.1585	0.0549
Mercury	91901-02-17 07:55 G	35287257.72	35287257.83	35287257.94	0.1952	0.1441
Mercury	91905-10-24 05:46 G	35288967.66	35288967.74	35288967.81	0.1585	0.1173
Mercury	91907-09-29 06:29 G	35289672.65	35289672.77	35289672.89	0.1585	0.0205
Earth	91907-11-22 18:00 G	35289727.13	35289727.25	35289727.37	0.1605	0.1219
Moon	91907-11-22 23:31 G	35289727.35	35289727.48	35289727.62	0.1605	0.1196 *
Mercury	91915-03-16 17:31 G	35292398.20	35292398.23	35292398.26	0.1586	0.1503
Mercury	91917-02-18 18:14 G	35293103.14	35293103.26	35293103.38	0.1585	0.0136
Mercury	91919-01-24 19:41 G	35293808.25	35293808.32	35293808.39	0.1587	0.1276
Mercury	91921-11-07 01:26 G	35294825.43	35294825.56	35294825.68	0.1952	0.1247
Mercury	91926-07-12 06:00 G	35296533.64	35296533.75	35296533.86	0.1585	0.0474
Mercury	91928-06-16 07:12 G	35297238.71	35297238.80	35297238.90	0.1586	0.0926
Mercury	91931-03-29 17:17 G	35298255.06	35298255.22	35298255.39	0.1952	0.0058
Venus	91932-12-25 03:50 G	35298891.50	35298891.66	35298891.83	0.1928	0.0581
Venus	91935-10-01 06:14 G	35299901.58	35299901.76	35299901.93	0.1608	0.0118
Mercury	91935-12-02 17:46 G	35299964.14	35299964.24	35299964.34	0.1585	0.0809
Mercury	91937-11-06 18:58 G	35300669.18	35300669.29	35300669.40	0.1586	0.0583

Mercury	91940-08-18 09:07 G	35301684.76	35301684.88	35301685.00	0.1953	0.1347
Mercury	91945-04-24 05:31 G	35303394.65	35303394.73	35303394.81	0.1585	0.1145
Earth	91946-05-27 06:58 G	35303792.63	35303792.79	35303792.95	0.1930	0.1128
Moon	91946-05-27 09:22 G	35303792.74	35303792.89	35303793.03	0.1930	0.1075 *
Mercury	91947-03-30 06:29 G	35304099.66	35304099.77	35304099.89	0.1585	0.0240
Mercury	91954-09-14 17:31 G	35306825.19	35306825.23	35306825.27	0.1586	0.1475
Mercury	91956-08-19 18:14 G	35307530.14	35307530.26	35307530.37	0.1585	0.0114
Mercury	91958-07-25 19:41 G	35308235.26	35308235.32	35308235.39	0.1587	0.1309
Mercury	91961-05-08 01:55 G	35309252.46	35309252.58	35309252.70	0.1952	0.1311
Mercury	91966-01-10 06:00 G	35310960.64	35310960.75	35310960.86	0.1585	0.0444
Mercury	91967-12-16 07:12 G	35311665.71	35311665.80	35311665.89	0.1586	0.0955
Mercury	91970-09-27 18:00 G	35312682.09	35312682.25	35312682.42	0.1953	0.0061
Mercury	91975-06-02 17:46 G	35314391.14	35314391.24	35314391.34	0.1585	0.0780
Mercury	91977-05-07 18:58 G	35315096.18	35315096.29	35315096.39	0.1585	0.0615
Mercury	91980-02-17 10:05 G	35316111.79	35316111.92	35316112.05	0.1953	0.1264
Mercury	91984-10-23 05:31 G	35317821.65	35317821.73	35317821.82	0.1585	0.1113
Mercury	91986-09-28 06:29 G	35318526.65	35318526.77	35318526.89	0.1585	0.0267
Earth	91986-11-24 20:53 G	35318584.19	35318584.37	35318584.54	0.1607	0.0632
Moon	91986-11-25 02:24 G	35318584.43	35318584.60	35318584.77	0.1607	0.0686 *
Mercury	91994-03-15 17:31 G	35321252.18	35321252.23	35321252.27	0.1585	0.1444
Mercury	91996-02-18 18:14 G	35321957.14	35321957.26	35321957.38	0.1585	0.0076
Mercury	91998-01-23 19:41 G	35322662.26	35322662.32	35322662.38	0.1587	0.1340
Venus	91998-10-22 06:14 G	35322933.63	35322933.76	35322933.88	0.1925	0.1286
Mercury	92000-11-06 02:53 G	35323679.50	35323679.62	35323679.73	0.1952	0.1394

93RD MILLENNIUM CE

This is a list of transits visible from Mars in the 93rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	92001-07-28 18:29	G	35323944.09	35323944.27	35323944.44	0.1609	0.0066	
Mercury	92005-07-11 06:00	G	35325387.63	35325387.75	35325387.86	0.1584	0.0416	
Mercury	92007-06-16 07:12	G	35326092.71	35326092.80	35326092.89	0.1586	0.0991	
Mercury	92010-03-28 18:58	G	35327109.13	35327109.29	35327109.46	0.1953	0.0128	
Mercury	92014-12-01 17:46	G	35328818.14	35328818.24	35328818.34	0.1585	0.0752	
Mercury	92016-11-05 18:43	G	35329523.18	35329523.28	35329523.39	0.1585	0.0643	
Mercury	92019-08-18 10:34	G	35330538.81	35330538.94	35330539.07	0.1953	0.1200	
Mercury	92024-04-23 05:31	G	35332248.65	35332248.73	35332248.81	0.1585	0.1083	
Mercury	92026-03-29 06:29	G	35332953.65	35332953.77	35332953.89	0.1585	0.0297	
Mercury	92033-09-13 17:17	G	35335679.17	35335679.22	35335679.27	0.1585	0.1417	
Mercury	92035-08-19 18:14	G	35336384.14	35336384.26	35336384.37	0.1585	0.0066	
Mercury	92037-07-24 19:41	G	35337089.26	35337089.32	35337089.38	0.1587	0.1373	
Mercury	92040-05-07 03:50	G	35338106.55	35338106.66	35338106.76	0.1952	0.1477	
Mercury	92045-01-09 06:00	G	35339814.63	35339814.75	35339814.86	0.1585	0.0386	
Mercury	92046-12-15 07:12	G	35340519.71	35340519.80	35340519.89	0.1586	0.1022	
Mercury	92049-09-26 19:55	G	35341536.17	35341536.33	35341536.50	0.1952	0.0201	
Mercury	92054-06-01 17:46	G	35343245.13	35343245.24	35343245.34	0.1584	0.0718	
Mercury	92056-05-06 18:43	G	35343950.18	35343950.28	35343950.39	0.1585	0.0676	
Mercury	92059-02-16 11:31	G	35344965.85	35344965.98	35344966.12	0.1953	0.1115	
Mercury	92063-10-23 05:31	G	35346675.64	35346675.73	35346675.81	0.1585	0.1055	
Mercury	92065-09-27 06:29	G	35347380.65	35347380.77	35347380.89	0.1585	0.0330	
Venus	92067-05-26 06:29	G	35347986.60	35347986.77	35347986.95	0.1611	0.0228	
Mercury	92073-03-14 17:17	G	35350106.17	35350106.22	35350106.28	0.1585	0.1386	
Mercury	92075-02-17 18:00	G	35350811.14	35350811.25	35350811.37	0.1584	0.0049	
Mercury	92077-01-22 19:41	G	35351516.27	35351516.32	35351516.38	0.1587	0.1405	

Mercury	92079-11-06 04:19 G	35352533.58	35352533.68	35352533.78	0.1952	0.1543
Mercury	92084-07-10 05:46 G	35354241.63	35354241.74	35354241.86	0.1584	0.0356
Mercury	92086-06-15 07:12 G	35354946.71	35354946.80	35354946.89	0.1586	0.1051
Mercury	92089-03-27 20:38 G	35355963.19	35355963.36	35355963.52	0.1953	0.0271
Mercury	92093-11-30 17:46 G	35357672.13	35357672.24	35357672.34	0.1585	0.0691
Mercury	92095-11-05 18:43 G	35358377.18	35358377.28	35358377.39	0.1585	0.0708
Mercury	92098-08-17 12:43 G	35359392.89	35359393.03	35359393.17	0.1953	0.1022
Venus	92099-05-25 00:00 G	35359673.48	35359673.50	35359673.52	0.1605	0.1595
Mercury	92103-04-24 05:31 G	35361102.64	35361102.73	35361102.82	0.1585	0.1023
Mercury	92105-03-29 06:29 G	35361807.65	35361807.77	35361807.88	0.1585	0.0361
Mercury	92112-09-13 17:17 G	35364533.16	35364533.22	35364533.28	0.1585	0.1355
Mercury	92114-08-19 18:14 G	35365238.14	35365238.26	35365238.37	0.1584	0.0063
Mercury	92116-07-24 19:41 G	35365943.27	35365943.32	35365943.37	0.1587	0.1437
Mercury	92119-05-08 05:17 G	35366960.63	35366960.72	35366960.80	0.1952	0.1624
Mercury	92124-01-10 05:46 G	35368668.63	35368668.74	35368668.86	0.1584	0.0325
Mercury	92125-12-15 07:12 G	35369373.71	35369373.80	35369373.89	0.1586	0.1087
Mercury	92128-09-26 21:36 G	35370390.24	35370390.40	35370390.56	0.1953	0.0356
Venus	92133-03-23 18:43 G	35372029.11	35372029.28	35372029.45	0.1613	0.0403
Mercury	92133-06-01 17:31 G	35372099.13	35372099.23	35372099.34	0.1584	0.0662
Mercury	92135-05-07 18:43 G	35372804.18	35372804.28	35372804.39	0.1585	0.0736
Mercury	92138-02-16 12:58 G	35373819.90	35373820.04	35373820.19	0.1953	0.0968
Mercury	92142-10-23 05:31 G	35375529.64	35375529.73	35375529.82	0.1585	0.0994
Mercury	92144-09-27 06:29 G	35376234.65	35376234.77	35376234.88	0.1585	0.0393
Mercury	92152-03-14 17:17 G	35378960.16	35378960.22	35378960.28	0.1585	0.1327
Mercury	92154-02-17 18:00 G	35379665.13	35379665.25	35379665.37	0.1584	0.0058
Mercury	92156-01-23 19:41 G	35380370.28	35380370.32	35380370.36	0.1587	0.1470
Mercury	92158-11-06 06:14 G	35381387.68	35381387.76	35381387.84	0.1952	0.1709
Venus	92162-06-16 10:48 G	35382705.82	35382705.95	35382706.08	0.1929	0.1242
Mercury	92163-07-11 05:46 G	35383095.63	35383095.74	35383095.86	0.1584	0.0293
Venus	92165-03-22 12:29 G	35383715.94	35383716.02	35383716.10	0.1607	0.1430

Mercury	92165-06-15 07:12 G	35383800.71	35383800.80	35383800.88	0.1586	0.1118
Mercury	92168-03-27 22:19 G	35384817.27	35384817.43	35384817.59	0.1953	0.0431
Mercury	92172-11-30 17:31 G	35386526.13	35386526.23	35386526.34	0.1584	0.0630
Mercury	92174-11-05 18:43 G	35387231.18	35387231.28	35387231.39	0.1585	0.0771
Mercury	92177-08-17 14:10 G	35388246.94	35388247.09	35388247.24	0.1953	0.0872
Mercury	92182-04-23 05:17 G	35389956.63	35389956.72	35389956.82	0.1585	0.0967
Mercury	92184-03-28 06:29 G	35390661.65	35390661.77	35390661.88	0.1585	0.0426
Mercury	92191-09-13 17:17 G	35393387.15	35393387.22	35393387.28	0.1585	0.1297
Moon	92191-11-24 17:31 G	35393459.05	35393459.23	35393459.42	0.1602	0.0527
Earth	92191-11-24 22:48 G	35393459.26	35393459.45	35393459.63	0.1602	0.0436 *
Mercury	92193-08-18 18:00 G	35394092.13	35394092.25	35394092.37	0.1584	0.0079
Mercury	92195-07-24 19:41 G	35394797.28	35394797.32	35394797.36	0.1587	0.1502
Mercury	92198-05-07 06:43 G	35395814.71	35395814.78	35395814.85	0.1952	0.1771
Venus	92199-01-19 06:58 G	35396071.62	35396071.79	35396071.95	0.1615	0.0574
Mercury	92203-01-10 05:46 G	35397522.63	35397522.74	35397522.86	0.1584	0.0260
Mercury	92204-12-15 07:12 G	35398227.72	35398227.80	35398227.88	0.1586	0.1149
Mercury	92207-09-27 23:02 G	35399244.31	35399244.46	35399244.62	0.1953	0.0510
Mercury	92212-06-01 17:31 G	35400953.12	35400953.23	35400953.34	0.1584	0.0599
Mercury	92214-05-07 18:43 G	35401658.18	35401658.28	35401658.38	0.1585	0.0802
Mercury	92217-02-16 15:07 G	35402673.98	35402674.13	35402674.28	0.1953	0.0789
Mercury	92221-10-23 05:17 G	35404383.63	35404383.72	35404383.82	0.1585	0.0934
Mercury	92223-09-28 06:29 G	35405088.65	35405088.77	35405088.88	0.1585	0.0458
Venus	92228-04-13 14:10 G	35406747.92	35406748.09	35406748.25	0.1926	0.0570
Earth	92230-05-28 10:34 G	35407522.74	35407522.94	35407523.13	0.1936	0.0459
Moon	92230-05-28 15:36 G	35407522.95	35407523.15	35407523.35	0.1936	0.0604 *
Venus	92231-01-19 00:43 G	35407758.43	35407758.53	35407758.64	0.1609	0.1264
Mercury	92231-03-15 17:17 G	35407814.15	35407814.22	35407814.29	0.1585	0.1266
Mercury	92233-02-17 18:00 G	35408519.13	35408519.25	35408519.37	0.1584	0.0114
Mercury	92235-01-23 19:41 G	35409224.29	35409224.32	35409224.35	0.1587	0.1535
Mercury	92237-11-06 07:41 G	35410241.77	35410241.82	35410241.87	0.1952	0.1856

Mercury	92242-07-11 05:46 G	35411949.62	35411949.74	35411949.86	0.1584	0.0229
Mercury	92244-06-15 07:12 G	35412654.72	35412654.80	35412654.88	0.1586	0.1184
Mercury	92247-03-29 00:00 G	35413671.34	35413671.50	35413671.66	0.1953	0.0587
Mercury	92251-12-01 17:31 G	35415380.12	35415380.23	35415380.34	0.1584	0.0569
Mercury	92253-11-05 18:43 G	35416085.18	35416085.28	35416085.38	0.1585	0.0832
Mercury	92256-08-17 15:36 G	35417101.00	35417101.15	35417101.31	0.1953	0.0725
Mercury	92261-04-23 05:17 G	35418810.63	35418810.72	35418810.82	0.1585	0.0903
Mercury	92263-03-29 06:14 G	35419515.65	35419515.76	35419515.88	0.1585	0.0489
Venus	92264-11-16 18:43 G	35420114.13	35420114.28	35420114.44	0.1616	0.0758
Mercury	92270-09-13 17:17 G	35422241.14	35422241.22	35422241.29	0.1585	0.1238
Earth	92270-11-28 01:12 G	35422316.46	35422316.55	35422316.64	0.1604	0.1393
Moon	92270-11-28 03:22 G	35422316.53	35422316.64	35422316.74	0.1604	0.1358 *
Mercury	92272-08-18 18:00 G	35422946.13	35422946.25	35422946.37	0.1584	0.0144
Mercury	92274-07-24 19:41 G	35423651.31	35423651.32	35423651.33	0.1587	0.1569
Mercury	92277-05-07 08:38 G	35424668.85	35424668.86	35424668.87	0.1952	0.1940
Mercury	92280-02-04 05:02 G	35425671.70	35425671.71	35425671.73	0.1586	0.1567
Mercury	92282-01-09 05:46 G	35426376.62	35426376.74	35426376.86	0.1584	0.0198
Mercury	92283-12-15 07:12 G	35427081.72	35427081.80	35427081.87	0.1586	0.1216
Mercury	92286-09-27 00:58 G	35428098.38	35428098.54	35428098.69	0.1953	0.0671
Mercury	92291-06-01 17:31 G	35429807.12	35429807.23	35429807.34	0.1584	0.0536
Mercury	92293-05-06 18:43 G	35430512.18	35430512.28	35430512.38	0.1585	0.0867
Venus	92294-02-08 16:19 G	35430790.01	35430790.18	35430790.35	0.1923	0.0143
Mercury	92296-02-16 16:48 G	35431528.04	35431528.20	35431528.35	0.1953	0.0638
Venus	92296-11-15 12:43 G	35431800.91	35431801.03	35431801.16	0.1610	0.1092
Mercury	92300-10-23 05:17 G	35433237.62	35433237.72	35433237.82	0.1584	0.0875
Mercury	92302-09-28 06:14 G	35433942.65	35433942.76	35433942.88	0.1584	0.0522
Mercury	92310-03-15 17:17 G	35436668.14	35436668.22	35436668.29	0.1585	0.1208
Mercury	92312-02-18 18:00 G	35437373.13	35437373.25	35437373.36	0.1584	0.0176
Mercury	92319-08-06 05:02 G	35440098.68	35440098.71	35440098.73	0.1586	0.1539
Mercury	92321-07-11 05:46 G	35440803.62	35440803.74	35440803.86	0.1584	0.0167

Mercury	92323-06-16 06:58 G	35441508.72	35441508.79	35441508.87	0.1586	0.1247
Mercury	92326-03-29 01:26 G	35442525.41	35442525.56	35442525.72	0.1954	0.0743
Venus	92330-09-15 06:58 G	35444156.65	35444156.79	35444156.93	0.1618	0.0936
Mercury	92330-12-01 17:31 G	35444234.12	35444234.23	35444234.34	0.1584	0.0507
Mercury	92332-11-05 18:43 G	35444939.18	35444939.28	35444939.38	0.1585	0.0899
Mercury	92335-08-18 17:46 G	35445955.08	35445955.24	35445955.40	0.1953	0.0545
Mercury	92340-04-23 05:17 G	35447664.62	35447664.72	35447664.82	0.1584	0.0841
Mercury	92342-03-29 06:14 G	35448369.65	35448369.76	35448369.87	0.1585	0.0552
Mercury	92345-01-07 08:53 G	35449384.83	35449384.87	35449384.91	0.1953	0.1891
Mercury	92349-09-13 17:02 G	35451095.14	35451095.21	35451095.29	0.1585	0.1178
Mercury	92351-08-19 18:00 G	35451800.13	35451800.25	35451800.37	0.1584	0.0208
Mercury	92359-02-04 05:02 G	35454525.68	35454525.71	35454525.74	0.1586	0.1512
Venus	92359-12-07 19:26 G	35454832.16	35454832.31	35454832.47	0.1920	0.0810
Mercury	92361-01-09 05:46 G	35455230.62	35455230.74	35455230.85	0.1584	0.0141
Venus	92362-09-14 01:26 G	35455843.41	35455843.56	35455843.70	0.1612	0.0928
Mercury	92362-12-15 07:12 G	35455935.73	35455935.80	35455935.86	0.1586	0.1283
Mercury	92365-09-27 02:38 G	35456952.46	35456952.61	35456952.76	0.1953	0.0828
Mercury	92370-06-01 17:31 G	35458661.11	35458661.23	35458661.34	0.1584	0.0479
Mercury	92372-05-06 18:43 G	35459366.18	35459366.28	35459366.37	0.1585	0.0929
Mercury	92375-02-16 18:14 G	35460382.10	35460382.26	35460382.42	0.1954	0.0490
Mercury	92379-10-23 05:17 G	35462091.62	35462091.72	35462091.82	0.1584	0.0812
Mercury	92381-09-27 06:14 G	35462796.65	35462796.76	35462796.87	0.1585	0.0583
Mercury	92384-07-08 10:05 G	35463811.86	35463811.92	35463811.98	0.1953	0.1799
Mercury	92389-03-14 17:02 G	35465522.13	35465522.21	35465522.29	0.1585	0.1148
Mercury	92391-02-17 18:00 G	35466227.13	35466227.25	35466227.36	0.1584	0.0240
Venus	92396-07-12 19:12 G	35468199.17	35468199.30	35468199.42	0.1620	0.1117
Earth	92396-11-25 01:26 G	35468334.48	35468334.56	35468334.64	0.1597	0.1439
Moon	92396-11-25 06:43 G	35468334.68	35468334.78	35468334.87	0.1597	0.1334
Mercury	92398-08-05 05:02 G	35468952.67	35468952.71	35468952.75	0.1586	0.1478
Mercury	92400-07-10 05:46 G	35469657.62	35469657.74	35469657.85	0.1584	0.0111

Mercury	92402-06-15 07:12 G	35470362.73	35470362.80	35470362.86	0.1586	0.1314
Mercury	92405-03-28 03:22 G	35471379.49	35471379.64	35471379.78	0.1953	0.0903
Mercury	92409-11-30 17:31 G	35473088.11	35473088.23	35473088.34	0.1584	0.0444
Mercury	92411-11-05 18:43 G	35473793.19	35473793.28	35473793.37	0.1585	0.0964
Mercury	92414-08-17 19:26 G	35474809.14	35474809.31	35474809.47	0.1954	0.0392
Mercury	92419-04-23 05:17 G	35476518.61	35476518.72	35476518.82	0.1584	0.0786
Mercury	92421-03-28 06:14 G	35477223.65	35477223.76	35477223.87	0.1584	0.0615
Mercury	92424-01-07 10:34 G	35478238.87	35478238.94	35478239.02	0.1953	0.1734
Venus	92425-10-03 22:19 G	35478874.32	35478874.43	35478874.53	0.1917	0.1490
Venus	92428-07-11 13:26 G	35479885.90	35479886.06	35479886.21	0.1614	0.0751
Mercury	92428-09-12 17:02 G	35479949.13	35479949.21	35479949.29	0.1585	0.1117
Mercury	92430-08-18 17:46 G	35480654.13	35480654.24	35480654.36	0.1584	0.0274
Mercury	92438-02-03 04:48 G	35483379.66	35483379.70	35483379.75	0.1586	0.1452
Mercury	92440-01-09 05:46 G	35484084.62	35484084.74	35484084.85	0.1584	0.0084
Mercury	92441-12-14 06:58 G	35484789.73	35484789.79	35484789.86	0.1586	0.1345
Mercury	92444-09-26 04:05 G	35485806.53	35485806.67	35485806.82	0.1954	0.0985
Mercury	92449-05-31 17:17 G	35487515.11	35487515.22	35487515.34	0.1584	0.0417
Mercury	92451-05-06 18:43 G	35488220.19	35488220.28	35488220.37	0.1585	0.0996
Mercury	92454-02-15 20:10 G	35489236.18	35489236.34	35489236.51	0.1954	0.0313
Mercury	92458-10-22 05:17 G	35490945.61	35490945.72	35490945.82	0.1584	0.0750
Mercury	92460-09-26 06:14 G	35491650.65	35491650.76	35491650.87	0.1584	0.0647
Venus	92462-05-10 06:58 G	35492241.69	35492241.79	35492241.89	0.1622	0.1304
Mercury	92463-07-08 11:46 G	35492665.90	35492665.99	35492666.07	0.1953	0.1644
Mercury	92468-03-13 17:02 G	35494376.13	35494376.21	35494376.29	0.1585	0.1086
Mercury	92470-02-16 18:00 G	35495081.13	35495081.25	35495081.36	0.1584	0.0305
Moon	92475-11-28 02:10 G	35497191.42	35497191.59	35497191.76	0.1599	0.0373
Earth	92475-11-28 03:50 G	35497191.48	35497191.66	35497191.85	0.1599	0.0357 *
Mercury	92477-08-04 04:48 G	35497806.65	35497806.70	35497806.75	0.1585	0.1422
Mercury	92479-07-10 05:31 G	35498511.62	35498511.73	35498511.85	0.1584	0.0066
Mercury	92481-06-14 07:12 G	35499216.74	35499216.80	35499216.85	0.1586	0.1381

Mercury	92484-03-27 05:02 G	35500233.57	35500233.71	35500233.84	0.1953	0.1060
Mercury	92488-11-29 17:17 G	35501942.11	35501942.22	35501942.34	0.1584	0.0385
Mercury	92490-11-04 18:43 G	35502647.19	35502647.28	35502647.37	0.1585	0.1027
Mercury	92493-08-16 20:53 G	35503663.20	35503663.37	35503663.53	0.1954	0.0244
Venus	92494-05-09 01:26 G	35503928.40	35503928.56	35503928.73	0.1616	0.0582
Mercury	92498-04-22 05:02 G	35505372.61	35505372.71	35505372.82	0.1584	0.0722
Mercury	92500-03-28 06:14 G	35506077.65	35506077.76	35506077.87	0.1584	0.0679
Mercury	92503-01-07 12:43 G	35507092.93	35507093.03	35507093.13	0.1954	0.1559
Mercury	92507-09-13 17:02 G	35508803.12	35508803.21	35508803.30	0.1585	0.1056
Mercury	92509-08-18 18:00 G	35509508.13	35509508.25	35509508.36	0.1584	0.0339
Mercury	92517-02-03 04:48 G	35512233.65	35512233.70	35512233.76	0.1585	0.1389
Mercury	92519-01-09 05:31 G	35512938.62	35512938.73	35512938.85	0.1584	0.0062
Mercury	92520-12-14 06:58 G	35513643.74	35513643.79	35513643.85	0.1586	0.1414
Venus	92523-08-02 00:00 G	35514604.42	35514604.50	35514604.58	0.1924	0.1695
Mercury	92523-09-27 05:46 G	35514660.61	35514660.74	35514660.88	0.1953	0.1145
Venus	92528-03-07 19:12 G	35516284.23	35516284.30	35516284.37	0.1624	0.1482
Mercury	92528-05-31 17:17 G	35516369.11	35516369.22	35516369.34	0.1584	0.0352
Mercury	92530-05-06 18:43 G	35517074.19	35517074.28	35517074.37	0.1585	0.1062
Mercury	92533-02-15 21:50 G	35518090.25	35518090.41	35518090.58	0.1954	0.0154
Mercury	92537-10-22 05:02 G	35519799.61	35519799.71	35519799.82	0.1584	0.0692
Mercury	92539-09-27 06:14 G	35520504.65	35520504.76	35520504.87	0.1584	0.0712
Mercury	92542-07-08 13:26 G	35521519.95	35521520.06	35521520.16	0.1953	0.1486
Mercury	92547-03-14 17:02 G	35523230.12	35523230.21	35523230.30	0.1585	0.1026
Mercury	92549-02-16 17:46 G	35523935.13	35523935.24	35523935.36	0.1584	0.0365
Mercury	92556-08-04 04:48 G	35526660.64	35526660.70	35526660.76	0.1585	0.1360
Mercury	92558-07-10 05:31 G	35527365.62	35527365.73	35527365.85	0.1584	0.0052
Venus	92560-03-06 13:41 G	35527970.90	35527971.07	35527971.24	0.1617	0.0404
Mercury	92560-06-14 06:58 G	35528070.75	35528070.79	35528070.84	0.1586	0.1444
Mercury	92563-03-28 06:29 G	35529087.65	35529087.77	35529087.90	0.1954	0.1221
Mercury	92567-11-30 17:17 G	35530796.11	35530796.22	35530796.34	0.1584	0.0321

Mercury	92569-11-04 18:43 G	35531501.19	35531501.28	35531501.36	0.1585	0.1095
Mercury	92572-08-16 22:48 G	35532517.29	35532517.45	35532517.62	0.1954	0.0084
Mercury	92577-04-22 05:02 G	35534226.61	35534226.71	35534226.82	0.1584	0.0659
Mercury	92579-03-28 06:14 G	35534931.65	35534931.76	35534931.86	0.1584	0.0744
Mercury	92582-01-06 14:10 G	35535946.98	35535947.09	35535947.21	0.1954	0.1404
Mercury	92586-09-12 17:02 G	35537657.12	35537657.21	35537657.30	0.1585	0.0996
Mercury	92588-08-17 18:00 G	35538362.13	35538362.25	35538362.36	0.1584	0.0404
Venus	92589-05-29 02:38 G	35538646.46	35538646.61	35538646.76	0.1921	0.1010
Mercury	92596-02-03 04:48 G	35541087.64	35541087.70	35541087.76	0.1585	0.1333
Mercury	92598-01-08 05:31 G	35541792.61	35541792.73	35541792.85	0.1584	0.0057
Mercury	92599-12-14 07:12 G	35542497.76	35542497.80	35542497.84	0.1585	0.1481
Mercury	92602-09-27 07:26 G	35543514.69	35543514.81	35543514.94	0.1954	0.1304
Mercury	92607-06-01 17:17 G	35545223.10	35545223.22	35545223.34	0.1584	0.0289
Mercury	92609-05-06 18:29 G	35545928.19	35545928.27	35545928.36	0.1585	0.1126
Mercury	92612-02-16 23:17 G	35546944.31	35546944.47	35546944.64	0.1954	0.0018
Mercury	92616-10-22 05:02 G	35548653.60	35548653.71	35548653.82	0.1584	0.0628
Mercury	92618-09-27 06:14 G	35549358.66	35549358.76	35549358.86	0.1584	0.0778
Mercury	92621-07-08 15:22 G	35550374.02	35550374.14	35550374.27	0.1954	0.1310
Venus	92626-01-03 01:41 G	35552013.39	35552013.57	35552013.74	0.1620	0.0229
Mercury	92626-03-14 17:02 G	35552084.11	35552084.21	35552084.30	0.1585	0.0966
Mercury	92628-02-17 17:46 G	35552789.13	35552789.24	35552789.36	0.1584	0.0432
Mercury	92635-08-05 04:48 G	35555514.63	35555514.70	35555514.76	0.1585	0.1298
Mercury	92637-07-10 05:31 G	35556219.61	35556219.73	35556219.85	0.1584	0.0093
Mercury	92639-06-15 06:58 G	35556924.76	35556924.79	35556924.83	0.1585	0.1513
Mercury	92642-03-28 08:10 G	35557941.73	35557941.84	35557941.96	0.1954	0.1379
Mercury	92646-11-30 17:17 G	35559650.10	35559650.22	35559650.34	0.1584	0.0256
Mercury	92648-11-04 18:43 G	35560355.20	35560355.28	35560355.36	0.1585	0.1162
Mercury	92651-08-18 00:29 G	35561371.36	35561371.52	35561371.69	0.1954	0.0099
Venus	92655-03-27 06:14 G	35562688.59	35562688.76	35562688.93	0.1918	0.0354
Mercury	92656-04-22 05:02 G	35563080.60	35563080.71	35563080.82	0.1584	0.0598

Mercury	92658-03-28 06:14 G	35563785.66	35563785.76	35563785.86	0.1584	0.0811
Mercury	92661-01-06 15:50 G	35564801.04	35564801.16	35564801.29	0.1954	0.1247
Mercury	92665-09-12 16:48 G	35566511.11	35566511.20	35566511.30	0.1585	0.0935
Mercury	92667-08-18 17:46 G	35567216.13	35567216.24	35567216.36	0.1584	0.0461
Mercury	92675-02-03 04:48 G	35569941.63	35569941.70	35569941.76	0.1585	0.1271
Mercury	92677-01-08 05:31 G	35570646.61	35570646.73	35570646.85	0.1584	0.0119
Mercury	92678-12-14 06:58 G	35571351.77	35571351.79	35571351.82	0.1585	0.1545
Earth	92680-11-28 07:12 G	35572066.63	35572066.80	35572066.98	0.1595	0.0627
Moon	92680-11-28 10:48 G	35572066.76	35572066.95	35572067.14	0.1595	0.0544 *
Mercury	92681-09-26 09:07 G	35572368.78	35572368.88	35572368.99	0.1954	0.1467
Mercury	92686-05-31 17:17 G	35574077.10	35574077.22	35574077.34	0.1584	0.0227
Mercury	92688-05-05 18:43 G	35574782.20	35574782.28	35574782.35	0.1585	0.1195
Mercury	92691-02-16 01:26 G	35575798.39	35575798.56	35575798.72	0.1954	0.0177
Venus	92691-10-31 13:26 G	35576055.89	35576056.06	35576056.24	0.1621	0.0062
Mercury	92695-10-22 05:02 G	35577507.60	35577507.71	35577507.82	0.1584	0.0563
Mercury	92697-09-26 06:14 G	35578212.66	35578212.76	35578212.86	0.1584	0.0844
Mercury	92700-07-08 17:02 G	35579228.07	35579228.21	35579228.34	0.1954	0.1153
Mercury	92705-03-14 16:48 G	35580938.11	35580938.20	35580938.30	0.1584	0.0904
Mercury	92707-02-17 17:46 G	35581643.13	35581643.24	35581643.36	0.1584	0.0498
Mercury	92714-08-05 04:34 G	35584368.62	35584368.69	35584368.76	0.1585	0.1242
Mercury	92716-07-10 05:31 G	35585073.61	35585073.73	35585073.85	0.1583	0.0149
Mercury	92718-06-15 07:12 G	35585778.79	35585778.80	35585778.80	0.1585	0.1581
Venus	92721-01-22 08:53 G	35586730.70	35586730.87	35586731.04	0.1915	0.0331
Mercury	92721-03-28 09:50 G	35586795.81	35586795.91	35586796.01	0.1954	0.1539
Mercury	92723-12-26 16:34 G	35587799.18	35587799.19	35587799.20	0.1586	0.1573
Mercury	92725-11-30 17:17 G	35588504.10	35588504.22	35588504.33	0.1584	0.0198
Mercury	92727-11-05 18:29 G	35589209.20	35589209.27	35589209.35	0.1585	0.1225
Mercury	92730-08-18 01:55 G	35590225.42	35590225.58	35590225.75	0.1954	0.0249
Mercury	92735-04-23 05:02 G	35591934.60	35591934.71	35591934.82	0.1584	0.0533
Mercury	92737-03-28 06:14 G	35592639.66	35592639.76	35592639.85	0.1584	0.0877

Mercury	92740-01-07 18:00 G	35593655.11	35593655.25	35593655.39	0.1954	0.1066
Mercury	92744-09-12 16:48 G	35595365.11	35595365.20	35595365.30	0.1584	0.0872
Mercury	92746-08-18 17:46 G	35596070.13	35596070.24	35596070.35	0.1584	0.0529
Mercury	92754-02-03 04:48 G	35598795.62	35598795.70	35598795.77	0.1585	0.1208
Mercury	92756-01-09 05:31 G	35599500.61	35599500.73	35599500.85	0.1584	0.0183
Venus	92757-08-29 01:41 G	35600098.39	35600098.57	35600098.74	0.1624	0.0136
Earth	92759-12-02 09:50 G	35600923.78	35600923.91	35600924.04	0.1596	0.1153
Moon	92759-12-02 16:34 G	35600924.09	35600924.19	35600924.30	0.1597	0.1332
Mercury	92760-09-26 10:48 G	35601222.86	35601222.95	35601223.04	0.1954	0.1625
Mercury	92763-06-26 16:34 G	35602226.17	35602226.19	35602226.21	0.1586	0.1544
Mercury	92765-05-31 17:17 G	35602931.10	35602931.22	35602931.33	0.1583	0.0164
Mercury	92767-05-06 18:43 G	35603636.21	35603636.28	35603636.35	0.1584	0.1262
Mercury	92770-02-16 03:07 G	35604652.47	35604652.63	35604652.79	0.1954	0.0337
Mercury	92774-10-22 05:02 G	35606361.60	35606361.71	35606361.82	0.1584	0.0505
Mercury	92776-09-26 06:14 G	35607066.66	35607066.76	35607066.85	0.1584	0.0910
Mercury	92779-07-08 18:43 G	35608082.14	35608082.28	35608082.42	0.1954	0.0995
Mercury	92784-03-13 16:48 G	35609792.10	35609792.20	35609792.30	0.1584	0.0841
Mercury	92786-02-16 17:46 G	35610497.13	35610497.24	35610497.35	0.1584	0.0558
Venus	92786-11-19 12:29 G	35610772.87	35610773.02	35610773.17	0.1911	0.0969
Mercury	92793-08-04 04:34 G	35613222.62	35613222.69	35613222.77	0.1585	0.1178
Mercury	92795-07-10 05:31 G	35613927.61	35613927.73	35613927.85	0.1584	0.0216
Mercury	92800-03-27 11:46 G	35615649.91	35615649.99	35615650.06	0.1954	0.1705
Mercury	92802-12-25 16:34 G	35616653.16	35616653.19	35616653.22	0.1586	0.1511
Mercury	92804-11-29 17:17 G	35617358.10	35617358.22	35617358.33	0.1584	0.0138
Mercury	92806-11-04 18:29 G	35618063.21	35618063.27	35618063.34	0.1585	0.1296
Mercury	92809-08-17 04:05 G	35619079.51	35619079.67	35619079.83	0.1954	0.0425
Mercury	92814-04-22 05:02 G	35620788.60	35620788.71	35620788.82	0.1584	0.0469
Mercury	92816-03-27 06:14 G	35621493.66	35621493.76	35621493.85	0.1584	0.0943
Mercury	92819-01-06 19:41 G	35622509.17	35622509.32	35622509.46	0.1954	0.0910
Venus	92823-06-26 13:41 G	35624140.90	35624141.07	35624141.24	0.1625	0.0320

Mercury	92823-09-12 16:48 G	35624219.10	35624219.20	35624219.30	0.1584	0.0810
Mercury	92825-08-17 17:46 G	35624924.13	35624924.24	35624924.35	0.1584	0.0596
Mercury	92833-02-02 04:34 G	35627649.61	35627649.69	35627649.77	0.1585	0.1149
Mercury	92835-01-08 05:31 G	35628354.61	35628354.73	35628354.84	0.1583	0.0248
Mercury	92839-09-26 12:29 G	35630076.96	35630077.02	35630077.09	0.1954	0.1784
Mercury	92842-06-25 16:34 G	35631080.15	35631080.19	35631080.23	0.1586	0.1482
Mercury	92844-05-30 17:02 G	35631785.10	35631785.21	35631785.33	0.1583	0.0113
Mercury	92846-05-05 18:29 G	35632490.21	35632490.27	35632490.34	0.1584	0.1325
Mercury	92849-02-15 04:34 G	35633506.53	35633506.69	35633506.85	0.1955	0.0488
Venus	92852-09-15 15:50 G	35634815.07	35634815.16	35634815.24	0.1908	0.1622
Mercury	92853-10-21 05:02 G	35635215.59	35635215.71	35635215.82	0.1584	0.0439
Venus	92855-06-25 08:24 G	35635827.81	35635827.85	35635827.89	0.1619	0.1566
Mercury	92855-09-26 06:00 G	35635920.66	35635920.75	35635920.85	0.1584	0.0978
Mercury	92858-07-07 20:53 G	35636936.22	35636936.37	35636936.52	0.1954	0.0812
Mercury	92863-03-13 16:48 G	35638646.10	35638646.20	35638646.30	0.1584	0.0778
Mercury	92865-02-15 17:46 G	35639351.13	35639351.24	35639351.35	0.1584	0.0626
Mercury	92872-08-03 04:34 G	35642076.61	35642076.69	35642076.77	0.1585	0.1115
Mercury	92874-07-09 05:31 G	35642781.61	35642781.73	35642781.84	0.1583	0.0282
Moon	92877-06-02 21:50 G	35643841.27	35643841.41	35643841.56	0.1944	0.1194
Earth	92877-06-03 03:36 G	35643841.49	35643841.65	35643841.80	0.1944	0.1191 *
Mercury	92879-03-27 13:12 G	35644504.00	35644504.05	35644504.10	0.1954	0.1861
Mercury	92881-12-24 16:34 G	35645507.14	35645507.19	35645507.23	0.1586	0.1455
Mercury	92883-11-29 17:17 G	35646212.10	35646212.22	35646212.33	0.1583	0.0086
Mercury	92885-11-03 18:29 G	35646917.22	35646917.27	35646917.33	0.1584	0.1364
Earth	92885-11-28 12:29 G	35646941.98	35646942.02	35646942.06	0.1591	0.1548
Mercury	92888-08-16 05:46 G	35647933.58	35647933.74	35647933.90	0.1955	0.0587
Venus	92889-04-23 01:26 G	35648183.39	35648183.56	35648183.73	0.1628	0.0510
Mercury	92893-04-21 05:02 G	35649642.59	35649642.71	35649642.82	0.1584	0.0414
Mercury	92895-03-27 06:14 G	35650347.66	35650347.76	35650347.85	0.1584	0.1010
Mercury	92898-01-05 21:22 G	35651363.23	35651363.39	35651363.54	0.1954	0.0752

Mercury	92902-09-12 16:48 G	35653073.10	35653073.20	35653073.30	0.1584	0.0746
Mercury	92904-08-17 17:46 G	35653778.13	35653778.24	35653778.35	0.1583	0.0657
Mercury	92912-02-03 04:34 G	35656503.61	35656503.69	35656503.77	0.1585	0.1086
Mercury	92914-01-08 05:31 G	35657208.61	35657208.73	35657208.84	0.1583	0.0315
Mercury	92918-09-26 14:10 G	35658931.09	35658931.09	35658931.10	0.1955	0.1954
Venus	92921-04-22 20:24 G	35659870.27	35659870.35	35659870.44	0.1621	0.1396
Mercury	92921-06-25 16:34 G	35659934.14	35659934.19	35659934.24	0.1586	0.1421
Mercury	92923-05-31 17:02 G	35660639.10	35660639.21	35660639.33	0.1583	0.0055
Mercury	92925-05-05 18:29 G	35661344.22	35661344.27	35661344.33	0.1584	0.1396
Mercury	92928-02-16 06:29 G	35662360.62	35662360.77	35662360.93	0.1954	0.0667
Mercury	92932-10-21 05:02 G	35664069.59	35664069.71	35664069.82	0.1584	0.0375
Mercury	92934-09-26 06:14 G	35664774.67	35664774.76	35664774.84	0.1584	0.1044
Mercury	92937-07-07 22:19 G	35665790.28	35665790.43	35665790.59	0.1955	0.0656
Mercury	92942-03-13 16:48 G	35667500.09	35667500.20	35667500.30	0.1584	0.0719
Mercury	92944-02-16 17:46 G	35668205.14	35668205.24	35668205.35	0.1583	0.0693
Venus	92950-07-14 16:48 G	35670545.09	35670545.20	35670545.30	0.1916	0.1502
Mercury	92951-08-04 04:34 G	35670930.60	35670930.69	35670930.77	0.1585	0.1055
Mercury	92953-07-09 05:17 G	35671635.61	35671635.72	35671635.84	0.1583	0.0347
Venus	92955-02-19 13:41 G	35672225.91	35672226.07	35672226.23	0.1630	0.0690
Mercury	92960-12-24 16:19 G	35674361.13	35674361.18	35674361.24	0.1586	0.1392
Mercury	92962-11-29 17:02 G	35675066.10	35675066.21	35675066.33	0.1583	0.0044
Mercury	92964-11-03 18:29 G	35675771.22	35675771.27	35675771.32	0.1584	0.1427
Moon	92964-12-01 07:26 G	35675798.62	35675798.81	35675799.01	0.1592	0.0038
Earth	92964-12-01 13:55 G	35675798.89	35675799.08	35675799.27	0.1592	0.0195 *
Mercury	92967-08-17 07:12 G	35676787.65	35676787.80	35676787.95	0.1955	0.0740
Mercury	92972-04-21 04:48 G	35678496.59	35678496.70	35678496.82	0.1584	0.0349
Mercury	92974-03-27 06:00 G	35679201.67	35679201.75	35679201.84	0.1584	0.1077
Mercury	92977-01-05 23:31 G	35680217.32	35680217.48	35680217.63	0.1955	0.0569
Mercury	92981-09-11 16:48 G	35681927.09	35681927.20	35681927.30	0.1584	0.0685
Mercury	92983-08-17 17:46 G	35682632.14	35682632.24	35682632.35	0.1583	0.0725

Mercury	92986-05-28 14:24 G	35683647.08	35683647.10	35683647.13	0.1954	0.1925
Venus	92987-02-18 08:24 G	35683912.74	35683912.85	35683912.97	0.1623	0.1216
Mercury	92991-02-02 04:34 G	35685357.60	35685357.69	35685357.78	0.1585	0.1022
Mercury	92993-01-07 05:31 G	35686062.61	35686062.73	35686062.84	0.1583	0.0382
Mercury	93000-06-25 16:19 G	35688788.13	35688788.18	35688788.24	0.1585	0.1362

94TH MILLENNIUM CE

This is a list of transits visible from Mars in the 94th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	93002-05-31 17:02 G	35689493.09	35689493.21	35689493.33	0.1583	0.0048		
Mercury	93004-05-05 18:29 G	35690198.23	35690198.27	35690198.32	0.1584	0.1465		
Mercury	93007-02-16 08:24 G	35691214.70	35691214.85	35691214.99	0.1955	0.0831		
Mercury	93011-10-22 04:48 G	35692923.59	35692923.70	35692923.82	0.1583	0.0316		
Mercury	93013-09-26 06:00 G	35693628.67	35693628.75	35693628.84	0.1584	0.1111		
Venus	93016-05-11 19:55 G	35694587.17	35694587.33	35694587.48	0.1912	0.0843		
Mercury	93016-07-08 00:00 G	35694644.34	35694644.50	35694644.66	0.1955	0.0499		
Venus	93020-12-18 00:58 G	35696268.40	35696268.54	35696268.69	0.1632	0.0890		
Mercury	93021-03-13 16:34 G	35696354.09	35696354.19	35696354.30	0.1584	0.0654		
Mercury	93023-02-16 17:46 G	35697059.13	35697059.24	35697059.34	0.1583	0.0757		
Mercury	93025-11-27 15:22 G	35698074.09	35698074.14	35698074.19	0.1954	0.1844		
Mercury	93030-08-04 04:34 G	35699784.60	35699784.69	35699784.78	0.1585	0.0993		
Mercury	93032-07-09 05:17 G	35700489.61	35700489.72	35700489.84	0.1583	0.0415		
Mercury	93039-12-25 16:19 G	35703215.12	35703215.18	35703215.24	0.1585	0.1329		

Mercury	93041-11-29 17:02 G	35703920.09	35703920.21	35703920.33	0.1583	0.0070
Mercury	93043-11-04 18:29 G	35704625.24	35704625.27	35704625.31	0.1584	0.1498
Mercury	93046-08-17 09:07 G	35705641.74	35705641.88	35705642.03	0.1955	0.0917
Mercury	93051-04-22 04:48 G	35707350.59	35707350.70	35707350.82	0.1583	0.0284
Venus	93052-12-16 20:10 G	35707955.21	35707955.34	35707955.48	0.1625	0.1035
Mercury	93053-03-27 06:00 G	35708055.67	35708055.75	35708055.84	0.1584	0.1144
Mercury	93056-01-07 00:58 G	35709071.38	35709071.54	35709071.70	0.1955	0.0410
Mercury	93060-09-11 16:34 G	35710781.09	35710781.19	35710781.30	0.1584	0.0623
Mercury	93062-08-17 17:46 G	35711486.14	35711486.24	35711486.34	0.1583	0.0793
Mercury	93065-05-28 16:19 G	35712501.11	35712501.18	35712501.25	0.1954	0.1757
Mercury	93070-02-02 04:19 G	35714211.59	35714211.68	35714211.78	0.1585	0.0965
Mercury	93072-01-08 05:17 G	35714916.61	35714916.72	35714916.84	0.1583	0.0442
Mercury	93079-06-25 16:19 G	35717642.12	35717642.18	35717642.25	0.1585	0.1298
Mercury	93081-05-30 17:02 G	35718347.09	35718347.21	35718347.33	0.1583	0.0098
Venus	93082-03-08 23:31 G	35718629.31	35718629.48	35718629.65	0.1909	0.0204
Mercury	93083-05-05 18:29 G	35719052.24	35719052.27	35719052.30	0.1584	0.1528
Mercury	93086-02-15 09:50 G	35720068.76	35720068.91	35720069.05	0.1955	0.0985
Venus	93086-10-15 12:58 G	35720310.91	35720311.04	35720311.17	0.1635	0.1076
Mercury	93090-10-21 04:48 G	35721777.59	35721777.70	35721777.82	0.1583	0.0249
Mercury	93092-09-25 06:00 G	35722482.68	35722482.75	35722482.83	0.1584	0.1180
Mercury	93095-07-08 02:10 G	35723498.43	35723498.59	35723498.75	0.1955	0.0312
Mercury	93100-03-13 16:34 G	35725208.08	35725208.19	35725208.30	0.1584	0.0590
Mercury	93102-02-16 17:46 G	35725913.14	35725913.24	35725913.34	0.1583	0.0825
Mercury	93104-11-27 17:17 G	35726928.13	35726928.22	35726928.30	0.1954	0.1676
Mercury	93109-08-04 04:34 G	35728638.59	35728638.69	35728638.78	0.1584	0.0929
Mercury	93111-07-10 05:17 G	35729343.61	35729343.72	35729343.84	0.1583	0.0480
Venus	93118-10-15 08:10 G	35731997.69	35731997.84	35731997.99	0.1627	0.0848
Mercury	93118-12-25 16:19 G	35732069.11	35732069.18	35732069.25	0.1585	0.1270
Mercury	93120-11-29 17:02 G	35732774.09	35732774.21	35732774.33	0.1583	0.0130
Mercury	93122-11-04 18:29 G	35733479.26	35733479.27	35733479.29	0.1584	0.1567

Mercury	93125-08-17 11:02 G	35734495.82	35734495.96	35734496.09	0.1955	0.1082
Mercury	93130-04-22 04:48 G	35736204.58	35736204.70	35736204.82	0.1583	0.0217
Mercury	93132-03-27 06:00 G	35736909.68	35736909.75	35736909.83	0.1583	0.1211
Mercury	93135-01-07 02:24 G	35737925.44	35737925.60	35737925.77	0.1955	0.0259
Mercury	93139-09-12 16:34 G	35739635.08	35739635.19	35739635.30	0.1584	0.0557
Mercury	93141-08-17 17:46 G	35740340.14	35740340.24	35740340.34	0.1583	0.0858
Mercury	93144-05-28 18:00 G	35741355.16	35741355.25	35741355.35	0.1954	0.1592
Venus	93148-01-05 02:53 G	35742671.45	35742671.62	35742671.78	0.1905	0.0448
Mercury	93149-02-02 04:19 G	35743065.59	35743065.68	35743065.78	0.1584	0.0900
Mercury	93151-01-08 05:17 G	35743770.61	35743770.72	35743770.83	0.1583	0.0510
Venus	93152-08-13 00:43 G	35744353.42	35744353.53	35744353.63	0.1637	0.1276
Mercury	93158-06-25 16:19 G	35746496.11	35746496.18	35746496.25	0.1585	0.1235
Mercury	93160-05-30 17:02 G	35747201.09	35747201.21	35747201.33	0.1583	0.0162
Earth	93161-06-05 04:05 G	35747571.48	35747571.67	35747571.86	0.1948	0.0587
Moon	93161-06-05 13:55 G	35747571.88	35747572.08	35747572.28	0.1948	0.0301
Mercury	93165-02-15 11:46 G	35748922.85	35748922.99	35748923.12	0.1955	0.1160
Mercury	93167-11-16 04:05 G	35749926.66	35749926.67	35749926.68	0.1586	0.1574
Mercury	93169-10-21 04:48 G	35750631.58	35750631.70	35750631.82	0.1583	0.0182
Earth	93169-12-02 19:26 G	35750674.14	35750674.31	35750674.48	0.1589	0.0716
Moon	93169-12-03 01:26 G	35750674.39	35750674.56	35750674.73	0.1589	0.0648 *
Mercury	93171-09-26 06:00 G	35751336.68	35751336.75	35751336.83	0.1584	0.1246
Mercury	93174-07-08 03:36 G	35752352.49	35752352.65	35752352.82	0.1955	0.0156
Mercury	93179-03-13 16:34 G	35754062.08	35754062.19	35754062.30	0.1584	0.0527
Mercury	93181-02-15 17:46 G	35754767.14	35754767.24	35754767.34	0.1583	0.0893
Mercury	93183-11-27 18:58 G	35755782.19	35755782.29	35755782.40	0.1954	0.1508
Venus	93184-08-11 20:10 G	35756040.18	35756040.34	35756040.50	0.1629	0.0666
Mercury	93188-08-03 04:19 G	35757492.59	35757492.68	35757492.78	0.1584	0.0868
Mercury	93190-07-09 05:17 G	35758197.61	35758197.72	35758197.83	0.1583	0.0540
Mercury	93197-12-24 16:19 G	35760923.10	35760923.18	35760923.25	0.1585	0.1206
Mercury	93199-11-29 17:02 G	35761628.09	35761628.21	35761628.33	0.1583	0.0195

Mercury	93204-08-16 12:29 G	35763349.89	35763350.02	35763350.14	0.1955	0.1237
Mercury	93207-05-17 04:05 G	35764353.65	35764353.67	35764353.69	0.1586	0.1543
Mercury	93209-04-21 04:48 G	35765058.58	35765058.70	35765058.82	0.1583	0.0150
Mercury	93211-03-27 06:00 G	35765763.69	35765763.75	35765763.82	0.1584	0.1280
Venus	93213-11-01 06:29 G	35766713.63	35766713.77	35766713.92	0.1902	0.1067
Mercury	93214-01-06 04:34 G	35766779.53	35766779.69	35766779.86	0.1955	0.0087
Venus	93218-06-10 12:14 G	35768395.93	35768396.01	35768396.08	0.1640	0.1472
Mercury	93218-09-11 16:34 G	35768489.08	35768489.19	35768489.30	0.1584	0.0493
Mercury	93220-08-16 17:46 G	35769194.14	35769194.24	35769194.33	0.1583	0.0926
Mercury	93223-05-28 19:55 G	35770209.22	35770209.33	35770209.44	0.1954	0.1423
Mercury	93228-02-02 04:19 G	35771919.58	35771919.68	35771919.78	0.1584	0.0835
Mercury	93230-01-07 05:17 G	35772624.61	35772624.72	35772624.83	0.1583	0.0578
Mercury	93237-06-24 16:05 G	35775350.10	35775350.17	35775350.25	0.1585	0.1178
Mercury	93239-05-30 17:02 G	35776055.09	35776055.21	35776055.33	0.1583	0.0228
Mercury	93244-02-15 13:26 G	35777776.94	35777777.06	35777777.18	0.1955	0.1323
Mercury	93246-11-15 04:05 G	35778780.64	35778780.67	35778780.70	0.1586	0.1512
Mercury	93248-10-20 04:48 G	35779485.58	35779485.70	35779485.82	0.1583	0.0124
Earth	93248-12-04 20:38 G	35779531.21	35779531.36	35779531.50	0.1590	0.1009
Moon	93248-12-04 21:22 G	35779531.25	35779531.39	35779531.54	0.1590	0.0935 *
Venus	93250-06-09 07:55 G	35780082.66	35780082.83	35780082.99	0.1631	0.0477
Mercury	93250-09-25 06:00 G	35780190.69	35780190.75	35780190.82	0.1583	0.1313
Mercury	93253-07-07 05:17 G	35781206.55	35781206.72	35781206.88	0.1955	0.0047
Mercury	93258-03-12 16:34 G	35782916.08	35782916.19	35782916.30	0.1584	0.0461
Mercury	93260-02-15 17:46 G	35783621.14	35783621.24	35783621.33	0.1583	0.0959
Mercury	93262-11-26 20:53 G	35784636.25	35784636.37	35784636.49	0.1955	0.1338
Mercury	93267-08-03 04:19 G	35786346.58	35786346.68	35786346.78	0.1584	0.0804
Mercury	93269-07-08 05:17 G	35787051.61	35787051.72	35787051.83	0.1583	0.0609
Mercury	93276-12-23 16:19 G	35789777.10	35789777.18	35789777.26	0.1585	0.1143
Mercury	93278-11-28 17:02 G	35790482.09	35790482.21	35790482.33	0.1583	0.0261
Venus	93279-08-29 10:19 G	35790755.85	35790755.93	35790756.00	0.1898	0.1697

Mercury	93283-08-16 14:10 G	35792203.98	35792204.09	35792204.21	0.1955	0.1411
Mercury	93286-05-16 04:05 G	35793207.63	35793207.67	35793207.71	0.1586	0.1483
Mercury	93288-04-20 04:48 G	35793912.58	35793912.70	35793912.82	0.1583	0.0084
Mercury	93290-03-26 06:00 G	35794617.69	35794617.75	35794617.81	0.1583	0.1349
Mercury	93293-01-05 06:14 G	35795633.59	35795633.76	35795633.92	0.1955	0.0096
Mercury	93297-09-10 16:34 G	35797343.07	35797343.19	35797343.30	0.1583	0.0433
Mercury	93299-08-16 17:46 G	35798048.15	35798048.24	35798048.33	0.1583	0.0995
Mercury	93302-05-28 21:50 G	35799063.28	35799063.41	35799063.53	0.1954	0.1257
Mercury	93307-02-02 04:19 G	35800773.58	35800773.68	35800773.78	0.1584	0.0773
Mercury	93309-01-07 05:17 G	35801478.61	35801478.72	35801478.83	0.1583	0.0640
Venus	93316-04-06 19:26 G	35804125.14	35804125.31	35804125.49	0.1634	0.0288
Mercury	93316-06-24 16:05 G	35804204.09	35804204.17	35804204.26	0.1585	0.1113
Mercury	93318-05-30 17:02 G	35804909.09	35804909.21	35804909.32	0.1583	0.0295
Mercury	93323-02-15 14:53 G	35806631.01	35806631.12	35806631.22	0.1956	0.1481
Mercury	93325-11-15 04:05 G	35807634.62	35807634.67	35807634.71	0.1586	0.1451
Mercury	93327-10-21 04:48 G	35808339.58	35808339.70	35808339.82	0.1583	0.0063
Mercury	93329-09-25 06:00 G	35809044.70	35809044.75	35809044.81	0.1583	0.1383
Mercury	93332-07-07 07:26 G	35810060.64	35810060.81	35810060.97	0.1955	0.0194
Mercury	93337-03-12 16:34 G	35811770.07	35811770.19	35811770.30	0.1583	0.0399
Mercury	93339-02-15 17:46 G	35812475.15	35812475.24	35812475.33	0.1583	0.1028
Mercury	93341-11-26 22:34 G	35813490.31	35813490.44	35813490.57	0.1954	0.1174
Mercury	93346-08-03 04:19 G	35815200.58	35815200.68	35815200.78	0.1584	0.0739
Mercury	93348-07-08 05:17 G	35815905.61	35815905.72	35815905.83	0.1583	0.0677
Mercury	93355-12-24 16:05 G	35818631.09	35818631.17	35818631.26	0.1585	0.1083
Mercury	93357-11-28 17:02 G	35819336.09	35819336.21	35819336.32	0.1583	0.0328
Mercury	93362-08-16 16:05 G	35821058.07	35821058.17	35821058.26	0.1955	0.1576
Mercury	93365-05-16 04:05 G	35822061.62	35822061.67	35822061.72	0.1586	0.1421
Mercury	93367-04-21 04:34 G	35822766.58	35822766.69	35822766.81	0.1583	0.0061
Mercury	93369-03-26 06:00 G	35823471.70	35823471.75	35823471.80	0.1583	0.1414
Mercury	93372-01-06 07:41 G	35824487.66	35824487.82	35824487.98	0.1955	0.0247

Mercury	93376-09-10 16:34 G	35826197.07	35826197.19	35826197.30	0.1583	0.0368
Venus	93377-06-26 10:19 G	35826485.81	35826485.93	35826486.05	0.1906	0.1358
Mercury	93378-08-16 17:31 G	35826902.15	35826902.23	35826902.32	0.1583	0.1062
Mercury	93381-05-27 23:31 G	35827917.34	35827917.48	35827917.62	0.1955	0.1084
Venus	93382-02-02 07:26 G	35828167.64	35828167.81	35828167.99	0.1636	0.0108
Mercury	93386-02-01 04:19 G	35829627.57	35829627.68	35829627.78	0.1584	0.0709
Mercury	93388-01-07 05:17 G	35830332.61	35830332.72	35830332.82	0.1583	0.0710
Mercury	93395-06-24 16:05 G	35833058.09	35833058.17	35833058.26	0.1585	0.1048
Mercury	93397-05-29 17:02 G	35833763.09	35833763.21	35833763.32	0.1583	0.0362
Mercury	93402-02-15 16:34 G	35835485.11	35835485.19	35835485.28	0.1955	0.1652
Mercury	93404-11-15 03:50 G	35836488.61	35836488.66	35836488.72	0.1586	0.1391
Mercury	93406-10-21 04:48 G	35837193.58	35837193.70	35837193.81	0.1583	0.0050
Mercury	93408-09-25 06:00 G	35837898.71	35837898.75	35837898.80	0.1583	0.1452
Mercury	93411-07-08 08:53 G	35838914.71	35838914.87	35838915.03	0.1956	0.0347
Mercury	93416-03-12 16:19 G	35840624.07	35840624.18	35840624.30	0.1583	0.0337
Mercury	93418-02-15 17:31 G	35841329.15	35841329.23	35841329.32	0.1583	0.1098
Mercury	93420-11-27 00:14 G	35842344.37	35842344.51	35842344.66	0.1955	0.1007
Mercury	93425-08-03 04:19 G	35844054.57	35844054.68	35844054.78	0.1584	0.0677
Mercury	93427-07-09 05:17 G	35844759.61	35844759.72	35844759.82	0.1583	0.0742
Mercury	93434-12-24 16:05 G	35847485.08	35847485.17	35847485.26	0.1585	0.1019
Mercury	93436-11-28 17:02 G	35848190.09	35848190.21	35848190.32	0.1583	0.0396
Mercury	93441-08-16 17:31 G	35849912.15	35849912.23	35849912.30	0.1956	0.1734
Venus	93443-04-24 13:41 G	35850527.91	35850528.07	35850528.23	0.1903	0.0717
Mercury	93444-05-16 03:50 G	35850915.61	35850915.66	35850915.72	0.1586	0.1359
Mercury	93446-04-21 04:34 G	35851620.58	35851620.69	35851620.81	0.1583	0.0061
Venus	93447-12-01 18:43 G	35852210.10	35852210.28	35852210.46	0.1639	0.0108
Mercury	93448-03-26 06:00 G	35852325.71	35852325.75	35852325.79	0.1583	0.1485
Mercury	93451-01-06 09:50 G	35853341.75	35853341.91	35853342.07	0.1956	0.0435
Moon	93453-12-06 02:10 G	35854406.39	35854406.59	35854406.80	0.1587	0.0163
Earth	93453-12-06 02:38 G	35854406.42	35854406.61	35854406.80	0.1587	0.0109 *

Mercury	93455-09-11 16:19 G	35855051.07	35855051.18	35855051.30	0.1583	0.0305
Mercury	93457-08-16 17:31 G	35855756.15	35855756.23	35855756.32	0.1583	0.1131
Mercury	93460-05-28 01:12 G	35856771.40	35856771.55	35856771.70	0.1955	0.0921
Mercury	93465-02-01 04:19 G	35858481.57	35858481.68	35858481.78	0.1584	0.0646
Mercury	93467-01-07 05:17 G	35859186.62	35859186.72	35859186.82	0.1583	0.0778
Mercury	93474-06-24 16:05 G	35861912.08	35861912.17	35861912.26	0.1585	0.0990
Mercury	93476-05-29 16:48 G	35862617.09	35862617.20	35862617.32	0.1582	0.0430
Mercury	93481-02-14 18:29 G	35864339.21	35864339.27	35864339.32	0.1956	0.1818
Mercury	93483-11-15 03:50 G	35865342.60	35865342.66	35865342.72	0.1586	0.1327
Mercury	93485-10-20 04:34 G	35866047.57	35866047.69	35866047.81	0.1583	0.0080
Mercury	93487-09-25 06:00 G	35866752.72	35866752.75	35866752.78	0.1583	0.1518
Mercury	93490-07-07 10:19 G	35867768.77	35867768.93	35867769.09	0.1956	0.0501
Mercury	93495-03-12 16:19 G	35869478.07	35869478.18	35869478.30	0.1583	0.0270
Mercury	93497-02-14 17:31 G	35870183.15	35870183.23	35870183.31	0.1583	0.1163
Mercury	93499-11-27 02:10 G	35871198.44	35871198.59	35871198.74	0.1955	0.0832
Mercury	93504-08-03 04:19 G	35872908.57	35872908.68	35872908.78	0.1584	0.0616
Mercury	93506-07-09 05:17 G	35873613.62	35873613.72	35873613.82	0.1583	0.0811
Venus	93509-02-19 17:46 G	35874570.06	35874570.24	35874570.41	0.1899	0.0102
Venus	93513-09-29 06:29 G	35876252.60	35876252.77	35876252.95	0.1641	0.0301
Mercury	93513-12-24 16:05 G	35876339.08	35876339.17	35876339.26	0.1585	0.0954
Mercury	93515-11-29 16:48 G	35877044.09	35877044.20	35877044.32	0.1583	0.0465
Mercury	93520-08-16 19:12 G	35878766.27	35878766.30	35878766.33	0.1956	0.1903
Mercury	93523-05-17 03:50 G	35879769.59	35879769.66	35879769.73	0.1586	0.1297
Mercury	93525-04-21 04:34 G	35880474.58	35880474.69	35880474.81	0.1583	0.0119
Mercury	93527-03-27 06:00 G	35881179.73	35881179.75	35881179.77	0.1583	0.1554
Mercury	93530-01-06 11:17 G	35882195.81	35882195.97	35882196.13	0.1956	0.0594
Mercury	93534-09-11 16:19 G	35883905.06	35883905.18	35883905.30	0.1583	0.0237
Mercury	93536-08-16 17:31 G	35884610.16	35884610.23	35884610.31	0.1583	0.1199
Mercury	93539-05-29 02:53 G	35885625.47	35885625.62	35885625.78	0.1955	0.0755
Mercury	93544-02-02 04:05 G	35887335.56	35887335.67	35887335.78	0.1584	0.0583

Mercury	93546-01-07 05:02 G	35888040.61	35888040.71	35888040.81	0.1582	0.0844
Mercury	93553-06-24 16:05 G	35890766.07	35890766.17	35890766.26	0.1585	0.0926
Mercury	93555-05-30 16:48 G	35891471.09	35891471.20	35891471.32	0.1582	0.0497
Mercury	93562-11-15 03:50 G	35894196.59	35894196.66	35894196.73	0.1586	0.1265
Mercury	93564-10-20 04:34 G	35894901.57	35894901.69	35894901.81	0.1583	0.0143
Mercury	93569-07-07 12:29 G	35896622.86	35896623.02	35896623.17	0.1956	0.0689
Mercury	93574-03-12 16:19 G	35898332.07	35898332.18	35898332.30	0.1583	0.0203
Venus	93574-12-17 21:07 G	35898612.22	35898612.38	35898612.55	0.1895	0.0530
Mercury	93576-02-15 17:31 G	35899037.16	35899037.23	35899037.30	0.1583	0.1232
Mercury	93578-11-27 03:50 G	35900052.50	35900052.66	35900052.81	0.1955	0.0669
Venus	93579-07-27 17:46 G	35900295.08	35900295.24	35900295.41	0.1644	0.0509
Mercury	93583-08-03 04:05 G	35901762.56	35901762.67	35901762.78	0.1584	0.0549
Mercury	93585-07-08 05:17 G	35902467.62	35902467.72	35902467.81	0.1582	0.0880
Mercury	93592-12-23 15:50 G	35905193.07	35905193.16	35905193.26	0.1584	0.0895
Mercury	93594-11-28 16:48 G	35905898.09	35905898.20	35905898.31	0.1582	0.0527
Mercury	93602-05-16 03:50 G	35908623.59	35908623.66	35908623.73	0.1586	0.1234
Mercury	93604-04-20 04:34 G	35909328.57	35909328.69	35909328.81	0.1583	0.0176
Mercury	93609-01-05 12:43 G	35911049.88	35911050.03	35911050.18	0.1956	0.0749
Venus	93611-07-26 13:55 G	35911982.00	35911982.08	35911982.16	0.1635	0.1456
Mercury	93611-10-06 15:36 G	35912054.14	35912054.15	35912054.16	0.1587	0.1575
Mercury	93613-09-10 16:19 G	35912759.06	35912759.18	35912759.30	0.1583	0.0170
Mercury	93615-08-16 17:31 G	35913464.16	35913464.23	35913464.30	0.1583	0.1266
Mercury	93618-05-28 04:48 G	35914479.54	35914479.70	35914479.86	0.1956	0.0578
Mercury	93623-02-01 04:05 G	35916189.56	35916189.67	35916189.78	0.1584	0.0517
Mercury	93625-01-06 05:02 G	35916894.62	35916894.71	35916894.81	0.1582	0.0915
Mercury	93627-10-17 20:10 G	35917909.33	35917909.34	35917909.35	0.1954	0.1946
Mercury	93632-06-23 15:50 G	35919620.07	35919620.16	35919620.26	0.1584	0.0860
Mercury	93634-05-29 16:48 G	35920325.09	35920325.20	35920325.31	0.1582	0.0561
Venus	93640-10-14 01:26 G	35922654.42	35922654.56	35922654.70	0.1891	0.1123
Mercury	93641-11-14 03:50 G	35923050.58	35923050.66	35923050.73	0.1585	0.1204

Mercury	93643-10-20 04:34 G	35923755.57	35923755.69	35923755.81	0.1582	0.0212
Venus	93645-05-24 05:02 G	35924337.56	35924337.71	35924337.87	0.1647	0.0714
Mercury	93648-07-06 13:55 G	35925476.93	35925477.08	35925477.23	0.1956	0.0848
Mercury	93651-04-06 15:36 G	35926481.13	35926481.15	35926481.17	0.1587	0.1544
Mercury	93653-03-11 16:19 G	35927186.06	35927186.18	35927186.29	0.1583	0.0143
Mercury	93655-02-14 17:31 G	35927891.17	35927891.23	35927891.30	0.1582	0.1301
Mercury	93657-11-26 05:31 G	35928906.57	35928906.73	35928906.89	0.1955	0.0503
Moon	93658-12-06 07:12 G	35929281.64	35929281.80	35929281.95	0.1585	0.0799
Earth	93658-12-06 08:10 G	35929281.67	35929281.84	35929282.01	0.1585	0.0773 *
Mercury	93662-08-02 04:05 G	35930616.56	35930616.67	35930616.78	0.1584	0.0484
Mercury	93664-07-07 05:02 G	35931321.62	35931321.71	35931321.81	0.1582	0.0944
Mercury	93667-04-17 20:38 G	35932336.32	35932336.36	35932336.40	0.1954	0.1880
Mercury	93671-12-23 15:50 G	35934047.06	35934047.16	35934047.26	0.1584	0.0829
Mercury	93673-11-27 16:48 G	35934752.09	35934752.20	35934752.31	0.1582	0.0595
Venus	93677-05-23 01:26 G	35936024.44	35936024.56	35936024.67	0.1638	0.1260
Mercury	93681-05-15 03:50 G	35937477.58	35937477.66	35937477.73	0.1585	0.1172
Mercury	93683-04-20 04:34 G	35938182.57	35938182.69	35938182.80	0.1583	0.0246
Mercury	93688-01-05 14:53 G	35939903.97	35939904.12	35939904.26	0.1956	0.0935
Mercury	93690-10-05 15:36 G	35940908.12	35940908.15	35940908.18	0.1587	0.1511
Mercury	93692-09-09 16:19 G	35941613.06	35941613.18	35941613.30	0.1583	0.0105
Mercury	93694-08-15 17:31 G	35942318.17	35942318.23	35942318.29	0.1583	0.1335
Mercury	93697-05-27 06:29 G	35943333.60	35943333.77	35943333.93	0.1955	0.0418
Mercury	93702-02-01 04:05 G	35945043.56	35945043.67	35945043.78	0.1583	0.0451
Mercury	93704-01-07 05:17 G	35945748.62	35945748.72	35945748.81	0.1582	0.0983
Venus	93706-08-12 05:17 G	35946696.65	35946696.72	35946696.79	0.1887	0.1731
Mercury	93706-10-17 21:50 G	35946763.34	35946763.41	35946763.48	0.1954	0.1779
Venus	93711-03-22 16:19 G	35948380.04	35948380.18	35948380.33	0.1649	0.0928
Mercury	93711-06-24 15:50 G	35948474.06	35948474.16	35948474.26	0.1584	0.0799
Mercury	93713-05-29 16:48 G	35949179.09	35949179.20	35949179.31	0.1582	0.0626
Mercury	93720-11-14 03:36 G	35951904.58	35951904.65	35951904.73	0.1585	0.1141

Mercury	93722-10-20 04:34 G	35952609.57	35952609.69	35952609.80	0.1582	0.0281
Mercury	93727-07-07 15:22 G	35954331.00	35954331.14	35954331.28	0.1956	0.1003
Mercury	93730-04-06 15:36 G	35955335.11	35955335.15	35955335.19	0.1587	0.1482
Mercury	93732-03-11 16:19 G	35956040.06	35956040.18	35956040.29	0.1583	0.0083
Mercury	93734-02-14 17:31 G	35956745.17	35956745.23	35956745.29	0.1582	0.1369
Mercury	93736-11-26 07:26 G	35957760.65	35957760.81	35957760.97	0.1956	0.0324
Moon	93737-12-09 02:53 G	35958138.47	35958138.62	35958138.77	0.1586	0.0946
Earth	93737-12-09 09:22 G	35958138.73	35958138.89	35958139.04	0.1586	0.0915 *
Venus	93738-08-12 00:29 G	35958384.49	35958384.52	35958384.55	0.1900	0.1857
Mercury	93741-08-02 04:05 G	35959470.55	35959470.67	35959470.78	0.1584	0.0420
Venus	93743-03-21 12:58 G	35960066.91	35960067.04	35960067.17	0.1640	0.1063
Mercury	93743-07-08 05:02 G	35960175.62	35960175.71	35960175.80	0.1582	0.1015
Mercury	93746-04-17 22:34 G	35961190.36	35961190.44	35961190.52	0.1954	0.1698
Mercury	93750-12-23 15:50 G	35962901.06	35962901.16	35962901.26	0.1584	0.0762
Mercury	93752-11-27 16:48 G	35963606.09	35963606.20	35963606.31	0.1582	0.0662
Mercury	93760-05-15 03:36 G	35966331.57	35966331.65	35966331.73	0.1585	0.1110
Mercury	93762-04-20 04:34 G	35967036.57	35967036.69	35967036.80	0.1582	0.0316
Mercury	93767-01-05 16:19 G	35968758.05	35968758.18	35968758.32	0.1956	0.1096
Mercury	93769-10-05 15:36 G	35969762.10	35969762.15	35969762.19	0.1587	0.1452
Mercury	93771-09-10 16:05 G	35970467.06	35970467.17	35970467.29	0.1583	0.0071
Mercury	93773-08-15 17:31 G	35971172.18	35971172.23	35971172.28	0.1582	0.1405
Mercury	93776-05-27 08:10 G	35972187.67	35972187.84	35972188.00	0.1956	0.0253
Venus	93777-01-17 03:36 G	35972422.53	35972422.65	35972422.78	0.1652	0.1139
Mercury	93781-01-31 04:05 G	35973897.55	35973897.67	35973897.78	0.1583	0.0389
Mercury	93783-01-06 05:02 G	35974602.62	35974602.71	35974602.80	0.1582	0.1047
Mercury	93785-10-16 23:17 G	35975617.38	35975617.47	35975617.56	0.1955	0.1621
Mercury	93790-06-23 15:50 G	35977328.05	35977328.16	35977328.26	0.1584	0.0734
Mercury	93792-05-28 16:48 G	35978033.09	35978033.20	35978033.30	0.1582	0.0696
Mercury	93799-11-14 03:36 G	35980758.57	35980758.65	35980758.74	0.1585	0.1076
Mercury	93801-10-20 04:19 G	35981463.57	35981463.68	35981463.80	0.1582	0.0347

Venus	93804-06-09 04:34 G	35982426.56	35982426.69	35982426.82	0.1896	0.1247
Mercury	93806-07-07 17:17 G	35983185.09	35983185.22	35983185.35	0.1956	0.1190
Moon	93808-06-11 06:43 G	35983889.61	35983889.78	35983889.96	0.1954	0.0861
Earth	93808-06-11 16:19 G	35983890.00	35983890.18	35983890.36	0.1954	0.0843
Venus	93809-01-17 00:29 G	35984109.37	35984109.52	35984109.67	0.1643	0.0869
Mercury	93809-04-06 15:36 G	35984189.10	35984189.15	35984189.20	0.1586	0.1419
Mercury	93811-03-12 16:19 G	35984894.06	35984894.18	35984894.29	0.1583	0.0058
Mercury	93813-02-14 17:31 G	35985599.18	35985599.23	35985599.28	0.1582	0.1439
Mercury	93815-11-27 08:53 G	35986614.71	35986614.87	35986615.04	0.1956	0.0166
Mercury	93820-08-02 04:05 G	35988324.55	35988324.67	35988324.78	0.1583	0.0358
Mercury	93822-07-08 05:02 G	35989029.63	35989029.71	35989029.80	0.1582	0.1085
Mercury	93825-04-18 00:29 G	35990044.41	35990044.52	35990044.62	0.1954	0.1531
Mercury	93829-12-23 15:36 G	35991755.05	35991755.15	35991755.26	0.1584	0.0704
Mercury	93831-11-28 16:48 G	35992460.09	35992460.20	35992460.30	0.1582	0.0729
Mercury	93839-05-16 03:36 G	35995185.56	35995185.65	35995185.74	0.1585	0.1044
Mercury	93841-04-20 04:19 G	35995890.57	35995890.68	35995890.80	0.1582	0.0377
Venus	93842-11-15 14:38 G	35996465.01	35996465.11	35996465.21	0.1655	0.1364
Mercury	93846-01-05 17:45 G	35997612.11	35997612.24	35997612.37	0.1957	0.1252
Mercury	93848-10-05 15:21 G	35998616.09	35998616.14	35998616.20	0.1586	0.1389
Mercury	93850-09-10 16:05 G	35999321.06	35999321.17	35999321.29	0.1583	0.0061
Mercury	93852-08-15 17:31 G	36000026.19	36000026.23	36000026.27	0.1582	0.1474
Mercury	93855-05-28 10:05 G	36001041.75	36001041.92	36001042.08	0.1956	0.0078
Mercury	93860-02-01 03:50 G	36002751.55	36002751.66	36002751.78	0.1583	0.0325
Mercury	93862-01-06 05:02 G	36003456.63	36003456.71	36003456.79	0.1582	0.1118
Mercury	93864-10-17 01:12 G	36004471.44	36004471.55	36004471.66	0.1954	0.1442
Mercury	93869-06-23 15:50 G	36006182.05	36006182.16	36006182.26	0.1584	0.0668
Venus	93870-04-06 08:09 G	36006468.68	36006468.84	36006469.00	0.1892	0.0624
Mercury	93871-05-29 16:48 G	36006887.09	36006887.20	36006887.30	0.1582	0.0765
Venus	93874-11-14 11:31 G	36008151.82	36008151.98	36008152.15	0.1646	0.0661
Mercury	93878-11-14 03:36 G	36009612.56	36009612.65	36009612.74	0.1585	0.1014

Mercury	93880-10-19 04:19 G	36010317.57	36010317.68	36010317.80	0.1582	0.0414
Mercury	93885-07-06 18:57 G	36012039.17	36012039.29	36012039.41	0.1957	0.1352
Mercury	93888-04-05 15:21 G	36013043.08	36013043.14	36013043.20	0.1586	0.1358
Mercury	93890-03-11 16:05 G	36013748.05	36013748.17	36013748.29	0.1583	0.0059
Mercury	93892-02-14 17:31 G	36014453.19	36014453.23	36014453.26	0.1582	0.1509
Mercury	93894-11-26 10:33 G	36015468.78	36015468.94	36015469.11	0.1956	0.0032
Mercury	93899-08-02 03:50 G	36017178.55	36017178.66	36017178.78	0.1583	0.0290
Mercury	93901-07-08 05:02 G	36017883.63	36017883.71	36017883.79	0.1582	0.1150
Mercury	93904-04-18 01:55 G	36018898.46	36018898.58	36018898.70	0.1955	0.1370
Venus	93908-09-13 01:41 G	36020507.53	36020507.57	36020507.62	0.1658	0.1585
Mercury	93908-12-23 15:36 G	36020609.05	36020609.15	36020609.26	0.1584	0.0637
Mercury	93910-11-28 16:48 G	36021314.09	36021314.20	36021314.30	0.1582	0.0800
Mercury	93918-05-16 03:36 G	36024039.56	36024039.65	36024039.74	0.1585	0.0980
Mercury	93920-04-20 04:19 G	36024744.57	36024744.68	36024744.79	0.1582	0.0444
Mercury	93925-01-05 19:41 G	36026466.21	36026466.32	36026466.43	0.1957	0.1438
Mercury	93927-10-06 15:21 G	36027470.08	36027470.14	36027470.20	0.1586	0.1324
Mercury	93929-09-10 16:05 G	36028175.06	36028175.17	36028175.29	0.1583	0.0103
Mercury	93931-08-16 17:31 G	36028880.21	36028880.23	36028880.25	0.1582	0.1545
Mercury	93934-05-28 11:31 G	36029895.81	36029895.98	36029896.14	0.1956	0.0093
Venus	93936-02-02 12:29 G	36030510.85	36030511.02	36030511.20	0.1888	0.0044
Mercury	93939-02-01 03:50 G	36031605.54	36031605.66	36031605.78	0.1583	0.0256
Venus	93940-09-11 23:17 G	36032194.30	36032194.47	36032194.64	0.1648	0.0464
Mercury	93941-01-06 05:02 G	36032310.63	36032310.71	36032310.79	0.1582	0.1189
Earth	93942-12-10 15:21 G	36033013.94	36033014.14	36033014.33	0.1584	0.0057
Moon	93942-12-10 21:21 G	36033014.20	36033014.39	36033014.59	0.1584	0.0087 *
Mercury	93943-10-18 03:07 G	36033325.50	36033325.63	36033325.75	0.1955	0.1271
Mercury	93948-06-23 15:36 G	36035036.04	36035036.15	36035036.26	0.1584	0.0605
Mercury	93950-05-29 16:33 G	36035741.09	36035741.19	36035741.29	0.1582	0.0832
Mercury	93957-11-14 03:36 G	36038466.55	36038466.65	36038466.74	0.1585	0.0950
Mercury	93959-10-20 04:19 G	36039171.57	36039171.68	36039171.79	0.1582	0.0478

Mercury	93964-07-06 20:24 G	36040893.24	36040893.35	36040893.45	0.1957	0.1508
Mercury	93967-04-06 15:21 G	36041897.07	36041897.14	36041897.20	0.1586	0.1294
Mercury	93969-03-11 16:05 G	36042602.05	36042602.17	36042602.29	0.1583	0.0128
Mercury	93971-02-14 17:31 G	36043307.22	36043307.23	36043307.23	0.1582	0.1580
Mercury	93973-11-26 12:29 G	36044322.86	36044323.02	36044323.19	0.1956	0.0196
Mercury	93978-08-02 03:50 G	36046032.54	36046032.66	36046032.78	0.1583	0.0222
Mercury	93980-07-07 05:02 G	36046737.64	36046737.71	36046737.78	0.1582	0.1221
Mercury	93983-04-18 03:50 G	36047752.53	36047752.66	36047752.79	0.1955	0.1191
Mercury	93987-12-23 15:36 G	36049463.04	36049463.15	36049463.26	0.1584	0.0569
Mercury	93989-11-27 16:33 G	36050168.10	36050168.19	36050168.29	0.1582	0.0869
Mercury	93997-05-15 03:21 G	36052893.55	36052893.64	36052893.74	0.1585	0.0920
Mercury	93999-04-20 04:19 G	36053598.57	36053598.68	36053598.79	0.1582	0.0513

95TH MILLENNIUM CE

This is a list of transits visible from Mars in the 95th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	94001-11-29 16:19 G		36054553.02	36054553.18	36054553.35	0.1884	0.0570	
Mercury	94004-01-05 21:21 G		36055320.30	36055320.39	36055320.48	0.1957	0.1603	
Venus	94006-07-10 10:19 G		36056236.76	36056236.93	36056237.10	0.1651	0.0247	
Mercury	94006-10-05 15:21 G		36056324.07	36056324.14	36056324.21	0.1586	0.1263	
Mercury	94008-09-09 16:05 G		36057029.05	36057029.17	36057029.29	0.1582	0.0161	
Mercury	94013-05-27 13:12 G		36058749.88	36058750.05	36058750.21	0.1956	0.0259	
Mercury	94018-01-31 03:50 G		36060459.54	36060459.66	36060459.78	0.1583	0.0190	

Mercury	94020-01-06 05:02 G	36061164.64	36061164.71	36061164.78	0.1582	0.1255
Mercury	94022-10-17 04:33 G	36062179.56	36062179.69	36062179.83	0.1955	0.1107
Mercury	94027-06-23 15:36 G	36063890.04	36063890.15	36063890.26	0.1584	0.0538
Mercury	94029-05-28 16:33 G	36064595.10	36064595.19	36064595.29	0.1582	0.0903
Mercury	94036-11-13 03:21 G	36067320.55	36067320.64	36067320.74	0.1585	0.0885
Mercury	94038-10-19 04:19 G	36068025.57	36068025.68	36068025.79	0.1582	0.0547
Mercury	94043-07-06 22:19 G	36069747.35	36069747.43	36069747.51	0.1957	0.1692
Mercury	94046-04-05 15:21 G	36070751.06	36070751.14	36070751.21	0.1586	0.1230
Mercury	94048-03-10 16:05 G	36071456.05	36071456.17	36071456.29	0.1582	0.0196
Mercury	94052-11-25 14:09 G	36073176.92	36073177.09	36073177.25	0.1956	0.0352
Mercury	94055-08-27 03:07 G	36074181.62	36074181.63	36074181.64	0.1587	0.1576
Mercury	94057-08-01 03:50 G	36074886.54	36074886.66	36074886.77	0.1583	0.0164
Mercury	94059-07-07 05:02 G	36075591.64	36075591.71	36075591.78	0.1582	0.1293
Mercury	94062-04-17 05:31 G	36076606.59	36076606.73	36076606.87	0.1955	0.1020
Mercury	94066-12-22 15:36 G	36078317.04	36078317.15	36078317.26	0.1584	0.0508
Venus	94067-09-26 21:07 G	36078595.24	36078595.38	36078595.52	0.1880	0.1138
Mercury	94068-11-26 16:33 G	36079022.10	36079022.19	36079022.29	0.1582	0.0934
Venus	94072-05-06 21:21 G	36080279.22	36080279.39	36080279.57	0.1654	0.0049
Mercury	94076-05-14 03:21 G	36081747.54	36081747.64	36081747.74	0.1585	0.0852
Mercury	94078-04-19 04:19 G	36082452.57	36082452.68	36082452.79	0.1582	0.0581
Mercury	94083-01-04 22:48 G	36084174.38	36084174.45	36084174.52	0.1957	0.1760
Mercury	94085-10-04 15:07 G	36085178.06	36085178.13	36085178.21	0.1586	0.1200
Mercury	94087-09-09 16:05 G	36085883.05	36085883.17	36085883.28	0.1582	0.0231
Mercury	94092-05-26 15:07 G	36087603.97	36087604.13	36087604.29	0.1957	0.0443
Earth	94092-06-11 12:57 G	36087619.88	36087620.04	36087620.20	0.1956	0.1167
Moon	94092-06-11 20:53 G	36087620.19	36087620.37	36087620.55	0.1956	0.0649 *
Mercury	94095-02-25 03:07 G	36088608.61	36088608.63	36088608.65	0.1587	0.1541
Mercury	94097-01-30 03:50 G	36089313.54	36089313.66	36089313.77	0.1583	0.0132
Mercury	94099-01-05 05:02 G	36090018.65	36090018.71	36090018.77	0.1582	0.1327
Mercury	94101-10-17 06:29 G	36091033.62	36091033.77	36091033.92	0.1955	0.0930

Mercury	94106-06-23 15:36 G	36092744.04	36092744.15	36092744.26	0.1584	0.0471
Mercury	94108-05-28 16:33 G	36093449.10	36093449.19	36093449.28	0.1582	0.0972
Mercury	94115-11-14 03:21 G	36096174.54	36096174.64	36096174.74	0.1585	0.0821
Mercury	94117-10-19 04:19 G	36096879.57	36096879.68	36096879.79	0.1582	0.0617
Mercury	94122-07-07 00:00 G	36098601.45	36098601.50	36098601.54	0.1957	0.1860
Mercury	94125-04-05 15:07 G	36099605.05	36099605.13	36099605.21	0.1586	0.1167
Mercury	94127-03-11 15:50 G	36100310.05	36100310.16	36100310.28	0.1582	0.0267
Mercury	94131-11-26 15:36 G	36102030.99	36102031.15	36102031.31	0.1956	0.0514
Venus	94133-07-25 01:12 G	36102637.48	36102637.55	36102637.61	0.1876	0.1724
Mercury	94134-08-27 03:07 G	36103035.60	36103035.63	36103035.66	0.1587	0.1511
Mercury	94136-08-01 03:36 G	36103740.54	36103740.65	36103740.77	0.1583	0.0104
Venus	94138-03-05 08:38 G	36104321.68	36104321.86	36104322.03	0.1657	0.0187
Mercury	94138-07-07 05:02 G	36104445.65	36104445.71	36104445.76	0.1582	0.1361
Mercury	94141-04-17 07:12 G	36105460.65	36105460.80	36105460.95	0.1956	0.0852
Mercury	94145-12-22 15:36 G	36107171.03	36107171.15	36107171.26	0.1584	0.0442
Mercury	94147-11-27 16:33 G	36107876.10	36107876.19	36107876.28	0.1582	0.1006
Moon	94147-12-10 15:21 G	36107888.98	36107889.14	36107889.29	0.1582	0.0884
Earth	94147-12-10 22:05 G	36107889.25	36107889.42	36107889.58	0.1582	0.0812 *
Mercury	94155-05-15 03:21 G	36110601.54	36110601.64	36110601.74	0.1585	0.0786
Mercury	94157-04-19 04:19 G	36111306.57	36111306.68	36111306.78	0.1582	0.0651
Mercury	94162-01-05 00:43 G	36113028.51	36113028.53	36113028.54	0.1957	0.1943
Mercury	94164-10-04 15:07 G	36114032.05	36114032.13	36114032.21	0.1586	0.1133
Venus	94165-07-24 19:12 G	36114325.24	36114325.30	36114325.35	0.1890	0.1767
Mercury	94166-09-09 16:05 G	36114737.05	36114737.17	36114737.28	0.1582	0.0301
Mercury	94171-05-27 16:33 G	36116458.03	36116458.19	36116458.35	0.1957	0.0606
Mercury	94174-02-25 02:53 G	36117462.59	36117462.62	36117462.66	0.1587	0.1483
Mercury	94176-01-31 03:36 G	36118167.54	36118167.65	36118167.77	0.1583	0.0068
Mercury	94178-01-05 05:02 G	36118872.66	36118872.71	36118872.76	0.1582	0.1400
Mercury	94180-10-16 08:09 G	36119887.69	36119887.84	36119888.00	0.1955	0.0758
Mercury	94185-06-22 15:21 G	36121598.03	36121598.14	36121598.26	0.1584	0.0410

Mercury	94187-05-28 16:33 G	36122303.10	36122303.19	36122303.28	0.1581	0.1039
Mercury	94194-11-13 03:21 G	36125028.54	36125028.64	36125028.74	0.1585	0.0754
Mercury	94196-10-18 04:19 G	36125733.57	36125733.68	36125733.78	0.1582	0.0686
Venus	94204-01-01 19:26 G	36128364.14	36128364.31	36128364.48	0.1660	0.0407
Mercury	94204-04-05 15:07 G	36128459.05	36128459.13	36128459.21	0.1586	0.1102
Mercury	94206-03-11 15:50 G	36129164.05	36129164.16	36129164.28	0.1582	0.0335
Mercury	94210-11-26 17:45 G	36130885.08	36130885.24	36130885.39	0.1957	0.0705
Mercury	94213-08-27 03:07 G	36131889.58	36131889.63	36131889.67	0.1587	0.1446
Mercury	94215-08-02 03:36 G	36132594.53	36132594.65	36132594.77	0.1583	0.0040
Mercury	94217-07-07 05:02 G	36133299.66	36133299.71	36133299.75	0.1582	0.1434
Mercury	94220-04-17 08:53 G	36134314.72	36134314.87	36134315.03	0.1955	0.0677
Mercury	94224-12-22 15:21 G	36136025.03	36136025.14	36136025.26	0.1583	0.0377
Mercury	94226-11-27 16:33 G	36136730.10	36136730.19	36136730.28	0.1582	0.1077
Moon	94226-12-13 19:12 G	36136746.12	36136746.30	36136746.49	0.1583	0.0693
Earth	94226-12-13 22:48 G	36136746.29	36136746.45	36136746.61	0.1583	0.0866 *
Venus	94231-05-22 23:45 G	36138367.36	36138367.49	36138367.62	0.1885	0.1189
Mercury	94234-05-15 03:21 G	36139455.53	36139455.64	36139455.74	0.1584	0.0725
Venus	94235-12-31 17:02 G	36140051.18	36140051.21	36140051.23	0.1650	0.1632
Mercury	94236-04-19 04:19 G	36140160.57	36140160.68	36140160.78	0.1582	0.0722
Mercury	94243-10-05 15:07 G	36142886.04	36142886.13	36142886.21	0.1586	0.1069
Mercury	94245-09-09 15:50 G	36143591.05	36143591.16	36143591.28	0.1582	0.0364
Mercury	94250-05-27 18:14 G	36145312.10	36145312.26	36145312.41	0.1957	0.0771
Mercury	94253-02-25 02:53 G	36146316.57	36146316.62	36146316.67	0.1587	0.1417
Mercury	94255-01-31 03:36 G	36147021.53	36147021.65	36147021.77	0.1583	0.0019
Mercury	94257-01-05 04:48 G	36147726.66	36147726.70	36147726.75	0.1582	0.1469
Mercury	94259-10-17 09:50 G	36148741.75	36148741.91	36148742.07	0.1956	0.0586
Mercury	94264-06-22 15:21 G	36150452.03	36150452.14	36150452.26	0.1583	0.0342
Mercury	94266-05-28 16:33 G	36151157.11	36151157.19	36151157.27	0.1581	0.1112
Venus	94269-10-29 06:14 G	36152406.60	36152406.76	36152406.93	0.1663	0.0636
Mercury	94273-11-13 03:21 G	36153882.53	36153882.64	36153882.74	0.1584	0.0688

Mercury	94275-10-19 04:05 G	36154587.57	36154587.67	36154587.78	0.1582	0.0757
Mercury	94283-04-05 15:07 G	36157313.04	36157313.13	36157313.21	0.1586	0.1037
Mercury	94285-03-10 15:50 G	36158018.05	36158018.16	36158018.28	0.1582	0.0403
Mercury	94289-11-25 19:12 G	36159739.15	36159739.30	36159739.45	0.1957	0.0868
Mercury	94292-08-26 02:53 G	36160743.57	36160743.62	36160743.68	0.1587	0.1385
Mercury	94294-08-01 03:36 G	36161448.53	36161448.65	36161448.77	0.1583	0.0046
Mercury	94296-07-06 05:02 G	36162153.67	36162153.71	36162153.74	0.1581	0.1507
Venus	94297-03-19 03:36 G	36162409.49	36162409.65	36162409.82	0.1881	0.0587
Mercury	94299-04-17 10:48 G	36163168.79	36163168.95	36163169.11	0.1956	0.0500
Venus	94301-10-29 04:05 G	36164093.58	36164093.67	36164093.75	0.1653	0.1420
Mercury	94303-12-23 15:21 G	36164879.03	36164879.14	36164879.26	0.1583	0.0307
Mercury	94305-11-27 16:33 G	36165584.11	36165584.19	36165584.27	0.1581	0.1146
Mercury	94308-09-07 01:55 G	36166598.54	36166598.58	36166598.62	0.1954	0.1894
Mercury	94313-05-15 03:07 G	36168309.53	36168309.63	36168309.74	0.1584	0.0658
Mercury	94315-04-20 04:05 G	36169014.57	36169014.67	36169014.78	0.1582	0.0790
Mercury	94322-10-05 15:07 G	36171740.04	36171740.13	36171740.22	0.1586	0.1005
Mercury	94324-09-09 15:50 G	36172445.05	36172445.16	36172445.28	0.1582	0.0435
Mercury	94329-05-27 20:09 G	36174166.20	36174166.34	36174166.49	0.1957	0.0963
Mercury	94332-02-26 02:53 G	36175170.56	36175170.62	36175170.68	0.1587	0.1350
Mercury	94334-01-31 03:36 G	36175875.53	36175875.65	36175875.77	0.1583	0.0082
Venus	94335-08-27 17:17 G	36176449.07	36176449.22	36176449.37	0.1666	0.0860
Mercury	94336-01-06 04:48 G	36176580.68	36176580.70	36176580.73	0.1581	0.1542
Mercury	94338-10-17 11:45 G	36177595.82	36177595.99	36177596.15	0.1956	0.0411
Mercury	94343-06-23 15:21 G	36179306.03	36179306.14	36179306.26	0.1583	0.0271
Mercury	94345-05-28 16:33 G	36180011.11	36180011.19	36180011.27	0.1581	0.1184
Mercury	94348-03-08 03:07 G	36181025.56	36181025.63	36181025.69	0.1954	0.1797
Mercury	94352-11-13 03:07 G	36182736.52	36182736.63	36182736.74	0.1584	0.0624
Moon	94352-12-11 10:48 G	36182764.93	36182764.95	36182764.98	0.1581	0.1568
Mercury	94354-10-19 04:05 G	36183441.57	36183441.67	36183441.77	0.1581	0.0827
Mercury	94362-04-05 14:53 G	36186167.03	36186167.12	36186167.22	0.1586	0.0973

Venus	94363-01-15 08:38 G	36186451.68	36186451.86	36186452.03	0.1877	0.0053
Mercury	94364-03-10 15:50 G	36186872.05	36186872.16	36186872.27	0.1582	0.0467
Venus	94367-08-26 15:36 G	36188136.03	36188136.15	36188136.26	0.1656	0.1221
Mercury	94368-11-25 20:38 G	36188593.22	36188593.36	36188593.50	0.1957	0.1033
Mercury	94371-08-27 02:53 G	36189597.56	36189597.62	36189597.68	0.1587	0.1319
Mercury	94373-08-01 03:36 G	36190302.53	36190302.65	36190302.77	0.1583	0.0117
Mercury	94375-07-07 04:48 G	36191007.70	36191007.70	36191007.71	0.1581	0.1576
Mercury	94378-04-17 12:29 G	36192022.86	36192023.02	36192023.18	0.1956	0.0326
Mercury	94382-12-22 15:21 G	36193733.02	36193733.14	36193733.26	0.1583	0.0238
Mercury	94384-11-26 16:33 G	36194438.11	36194438.19	36194438.26	0.1581	0.1219
Mercury	94387-09-07 04:05 G	36195452.59	36195452.67	36195452.75	0.1954	0.1698
Mercury	94392-05-14 03:07 G	36197163.52	36197163.63	36197163.74	0.1584	0.0588
Mercury	94394-04-19 04:05 G	36197868.57	36197868.67	36197868.77	0.1582	0.0861
Venus	94401-06-24 04:19 G	36200491.55	36200491.68	36200491.81	0.1669	0.1088
Mercury	94401-10-04 14:53 G	36200594.03	36200594.12	36200594.22	0.1585	0.0938
Mercury	94403-09-09 15:50 G	36201299.05	36201299.16	36201299.27	0.1582	0.0506
Mercury	94408-05-26 21:36 G	36203020.27	36203020.40	36203020.54	0.1957	0.1129
Mercury	94411-02-25 02:53 G	36204024.55	36204024.62	36204024.68	0.1587	0.1289
Mercury	94413-01-30 03:36 G	36204729.53	36204729.65	36204729.76	0.1582	0.0155
Mercury	94417-10-16 13:26 G	36206449.90	36206450.06	36206450.23	0.1956	0.0236
Mercury	94422-06-22 15:21 G	36208160.02	36208160.14	36208160.26	0.1583	0.0206
Mercury	94424-05-27 16:19 G	36208865.11	36208865.18	36208865.26	0.1581	0.1254
Mercury	94427-03-08 04:33 G	36209879.60	36209879.69	36209879.78	0.1954	0.1636
Venus	94428-11-11 12:43 G	36210493.87	36210494.03	36210494.20	0.1873	0.0548
Mercury	94431-11-13 03:07 G	36211590.52	36211590.63	36211590.74	0.1584	0.0554
Earth	94431-12-14 05:17 G	36211621.53	36211621.72	36211621.91	0.1582	0.0026
Moon	94431-12-14 07:26 G	36211621.64	36211621.81	36211621.99	0.1582	0.0123 *
Venus	94433-06-23 02:09 G	36212178.46	36212178.59	36212178.73	0.1659	0.1001
Mercury	94433-10-18 04:05 G	36212295.58	36212295.67	36212295.77	0.1581	0.0896
Mercury	94441-04-04 14:53 G	36215021.03	36215021.12	36215021.22	0.1585	0.0905

Mercury	94443-03-10 15:50 G	36215726.05	36215726.16	36215726.27	0.1582	0.0539
Mercury	94447-11-25 22:48 G	36217447.32	36217447.45	36217447.58	0.1957	0.1228
Mercury	94450-08-26 02:53 G	36218451.55	36218451.62	36218451.69	0.1587	0.1252
Mercury	94452-07-31 03:36 G	36219156.53	36219156.65	36219156.76	0.1582	0.0189
Mercury	94457-04-16 14:09 G	36220876.93	36220877.09	36220877.26	0.1956	0.0152
Mercury	94461-12-21 15:21 G	36222587.02	36222587.14	36222587.26	0.1583	0.0168
Mercury	94463-11-26 16:33 G	36223292.12	36223292.19	36223292.25	0.1581	0.1292
Mercury	94466-09-06 05:45 G	36224306.64	36224306.74	36224306.85	0.1954	0.1527
Venus	94467-04-21 14:53 G	36224534.02	36224534.12	36224534.22	0.1672	0.1328
Mercury	94471-05-14 03:07 G	36226017.52	36226017.63	36226017.74	0.1584	0.0523
Mercury	94473-04-18 04:05 G	36226722.58	36226722.67	36226722.77	0.1581	0.0932
Mercury	94480-10-03 14:53 G	36229448.02	36229448.12	36229448.22	0.1585	0.0872
Mercury	94482-09-08 15:50 G	36230153.05	36230153.16	36230153.27	0.1582	0.0574
Mercury	94487-05-26 23:17 G	36231874.34	36231874.47	36231874.59	0.1957	0.1293
Mercury	94490-02-24 02:53 G	36232878.54	36232878.62	36232878.69	0.1587	0.1223
Mercury	94492-01-30 03:36 G	36233583.53	36233583.65	36233583.76	0.1582	0.0224
Venus	94494-09-08 18:00 G	36234536.11	36234536.25	36234536.39	0.1869	0.1088
Mercury	94496-10-15 15:21 G	36235303.97	36235304.14	36235304.30	0.1957	0.0070
Venus	94499-04-20 13:26 G	36236220.90	36236221.06	36236221.21	0.1662	0.0787
Mercury	94499-07-17 14:38 G	36236309.10	36236309.11	36236309.12	0.1588	0.1568
Mercury	94501-06-22 15:21 G	36237014.02	36237014.14	36237014.25	0.1583	0.0141
Mercury	94503-05-28 16:33 G	36237719.12	36237719.19	36237719.25	0.1581	0.1328
Mercury	94506-03-08 06:43 G	36238733.67	36238733.78	36238733.89	0.1954	0.1439
Mercury	94510-11-13 03:07 G	36240444.52	36240444.63	36240444.74	0.1584	0.0486
Moon	94510-12-17 01:26 G	36240478.51	36240478.56	36240478.62	0.1582	0.1502
Mercury	94512-10-18 04:05 G	36241149.58	36241149.67	36241149.76	0.1581	0.0967
Mercury	94520-04-04 14:53 G	36243875.02	36243875.12	36243875.22	0.1585	0.0838
Mercury	94522-03-10 15:50 G	36244580.05	36244580.16	36244580.27	0.1582	0.0611
Mercury	94526-11-26 00:14 G	36246301.40	36246301.51	36246301.63	0.1958	0.1396
Mercury	94529-08-26 02:38 G	36247305.54	36247305.61	36247305.69	0.1587	0.1191

Mercury	94531-08-01 03:21 G	36248010.53	36248010.64	36248010.76	0.1582	0.0257
Venus	94533-02-17 01:55 G	36248576.52	36248576.58	36248576.64	0.1675	0.1556
Mercury	94536-04-16 16:05 G	36249731.00	36249731.17	36249731.34	0.1956	0.0030
Mercury	94539-01-16 14:38 G	36250736.08	36250736.11	36250736.13	0.1588	0.1537
Mercury	94540-12-21 15:21 G	36251441.02	36251441.14	36251441.25	0.1583	0.0111
Mercury	94542-11-26 16:19 G	36252146.13	36252146.18	36252146.24	0.1581	0.1361
Mercury	94545-09-06 07:26 G	36253160.69	36253160.81	36253160.92	0.1955	0.1365
Mercury	94550-05-14 03:07 G	36254871.51	36254871.63	36254871.74	0.1584	0.0455
Mercury	94552-04-18 04:05 G	36255576.58	36255576.67	36255576.76	0.1581	0.1003
Mercury	94559-10-04 14:53 G	36258302.02	36258302.12	36258302.22	0.1585	0.0804
Venus	94560-07-06 22:33 G	36258578.36	36258578.44	36258578.52	0.1864	0.1643
Mercury	94561-09-08 15:50 G	36259007.05	36259007.16	36259007.26	0.1582	0.0647
Venus	94565-02-16 00:14 G	36260263.35	36260263.51	36260263.68	0.1665	0.0562
Mercury	94566-05-27 01:26 G	36260728.45	36260728.56	36260728.66	0.1958	0.1491
Mercury	94569-02-24 02:38 G	36261732.54	36261732.61	36261732.69	0.1586	0.1155
Mercury	94571-01-30 03:36 G	36262437.53	36262437.65	36262437.76	0.1582	0.0296
Mercury	94575-10-16 17:02 G	36264158.04	36264158.21	36264158.37	0.1956	0.0128
Mercury	94578-07-17 14:38 G	36265163.07	36265163.11	36265163.14	0.1588	0.1507
Mercury	94580-06-21 15:21 G	36265868.02	36265868.14	36265868.25	0.1583	0.0084
Mercury	94582-05-27 16:33 G	36266573.13	36266573.19	36266573.24	0.1581	0.1401
Mercury	94585-03-07 08:24 G	36267587.73	36267587.85	36267587.98	0.1955	0.1265
Mercury	94589-11-12 02:53 G	36269298.51	36269298.62	36269298.74	0.1584	0.0425
Mercury	94591-10-18 04:05 G	36270003.58	36270003.67	36270003.76	0.1581	0.1039
Venus	94592-07-06 15:21 G	36270266.08	36270266.14	36270266.20	0.1878	0.1753
Mercury	94599-04-04 14:53 G	36272729.02	36272729.12	36272729.22	0.1585	0.0771
Mercury	94601-03-10 15:36 G	36273434.05	36273434.15	36273434.26	0.1582	0.0680
Mercury	94605-11-26 01:55 G	36275155.48	36275155.58	36275155.67	0.1958	0.1562
Mercury	94608-08-26 02:38 G	36276159.53	36276159.61	36276159.69	0.1587	0.1123
Mercury	94610-08-01 03:21 G	36276864.53	36276864.64	36276864.76	0.1582	0.0328
Mercury	94615-04-17 17:45 G	36278585.08	36278585.24	36278585.41	0.1957	0.0216

Mercury	94618-01-16 14:38 G	36279590.06	36279590.11	36279590.15	0.1588	0.1472
Mercury	94619-12-22 15:21 G	36280295.02	36280295.14	36280295.25	0.1583	0.0071
Mercury	94621-11-26 16:19 G	36281000.14	36281000.18	36281000.23	0.1581	0.1438
Mercury	94624-09-06 09:36 G	36282014.76	36282014.90	36282015.03	0.1955	0.1167
Mercury	94629-05-14 03:07 G	36283725.51	36283725.63	36283725.74	0.1584	0.0387
Venus	94630-12-15 10:48 G	36284305.78	36284305.95	36284306.13	0.1668	0.0335
Mercury	94631-04-19 04:05 G	36284430.58	36284430.67	36284430.76	0.1581	0.1075
Moon	94636-12-14 11:02 G	36286496.79	36286496.96	36286497.13	0.1581	0.0855
Earth	94636-12-14 12:43 G	36286496.86	36286497.03	36286497.19	0.1581	0.0803 *
Mercury	94638-10-04 14:53 G	36287156.01	36287156.12	36287156.22	0.1585	0.0738
Mercury	94640-09-08 15:50 G	36287861.05	36287861.16	36287861.26	0.1581	0.0720
Mercury	94645-05-27 02:53 G	36289582.53	36289582.62	36289582.70	0.1958	0.1660
Mercury	94648-02-25 02:38 G	36290586.53	36290586.61	36290586.69	0.1586	0.1090
Mercury	94650-01-30 03:21 G	36291291.53	36291291.64	36291291.76	0.1582	0.0359
Mercury	94654-10-16 18:43 G	36293012.12	36293012.28	36293012.45	0.1956	0.0303
Mercury	94657-07-17 14:24 G	36294017.06	36294017.10	36294017.15	0.1588	0.1440
Venus	94658-05-04 20:24 G	36294308.22	36294308.35	36294308.48	0.1874	0.1199
Mercury	94659-06-22 15:07 G	36294722.02	36294722.13	36294722.25	0.1583	0.0041
Mercury	94661-05-27 16:19 G	36295427.14	36295427.18	36295427.22	0.1581	0.1471
Mercury	94664-03-07 09:50 G	36296441.78	36296441.91	36296442.05	0.1955	0.1101
Mercury	94668-11-12 02:53 G	36298152.51	36298152.62	36298152.74	0.1584	0.0353
Mercury	94670-10-18 04:05 G	36298857.59	36298857.67	36298857.75	0.1581	0.1112
Mercury	94678-04-04 14:53 G	36301583.01	36301583.12	36301583.22	0.1585	0.0704
Mercury	94680-03-09 15:36 G	36302288.05	36302288.15	36302288.26	0.1582	0.0753
Mercury	94684-11-25 03:50 G	36304009.60	36304009.66	36304009.73	0.1958	0.1760
Mercury	94687-08-26 02:38 G	36305013.53	36305013.61	36305013.70	0.1586	0.1054
Mercury	94689-07-31 03:21 G	36305718.53	36305718.64	36305718.76	0.1582	0.0398
Mercury	94694-04-16 19:26 G	36307439.15	36307439.31	36307439.48	0.1957	0.0387
Venus	94696-10-11 21:36 G	36308348.23	36308348.40	36308348.58	0.1671	0.0109
Mercury	94697-01-15 14:24 G	36308444.05	36308444.10	36308444.15	0.1588	0.1408

Mercury	94698-12-21 15:07 G	36309149.02	36309149.13	36309149.25	0.1583	0.0061
Mercury	94700-11-26 16:33 G	36309854.15	36309854.19	36309854.22	0.1581	0.1512
Mercury	94703-09-07 11:17 G	36310868.83	36310868.97	36310869.11	0.1955	0.0989
Mercury	94708-05-14 02:53 G	36312579.51	36312579.62	36312579.74	0.1584	0.0318
Mercury	94710-04-19 04:05 G	36313284.59	36313284.67	36313284.75	0.1581	0.1148
Earth	94715-12-18 13:26 G	36315353.90	36315354.06	36315354.22	0.1581	0.0857
Moon	94715-12-18 18:29 G	36315354.12	36315354.27	36315354.42	0.1581	0.1044 *
Mercury	94717-10-04 14:53 G	36316010.01	36316010.12	36316010.22	0.1585	0.0671
Mercury	94719-09-09 15:36 G	36316715.05	36316715.15	36316715.25	0.1581	0.0787
Venus	94724-03-02 00:43 G	36318350.37	36318350.53	36318350.69	0.1870	0.0624
Mercury	94724-05-27 04:19 G	36318436.62	36318436.68	36318436.74	0.1958	0.1825
Mercury	94727-02-25 02:38 G	36319440.52	36319440.61	36319440.70	0.1586	0.1023
Mercury	94729-01-30 03:21 G	36320145.53	36320145.64	36320145.76	0.1582	0.0432
Mercury	94733-10-16 20:38 G	36321866.20	36321866.36	36321866.52	0.1957	0.0488
Mercury	94736-07-17 14:24 G	36322871.05	36322871.10	36322871.16	0.1588	0.1372
Mercury	94738-06-22 15:07 G	36323576.01	36323576.13	36323576.25	0.1583	0.0080
Moon	94739-06-19 14:24 G	36323937.89	36323938.10	36323938.31	0.1958	0.0117
Earth	94739-06-19 22:33 G	36323938.24	36323938.44	36323938.64	0.1958	0.0141 *
Mercury	94740-05-27 16:19 G	36324281.16	36324281.18	36324281.21	0.1581	0.1548
Mercury	94743-03-08 12:00 G	36325295.86	36325296.00	36325296.15	0.1955	0.0903
Mercury	94747-11-13 02:53 G	36327006.51	36327006.62	36327006.74	0.1584	0.0281
Mercury	94749-10-18 04:05 G	36327711.59	36327711.67	36327711.75	0.1581	0.1185
Mercury	94757-04-04 14:38 G	36330437.01	36330437.11	36330437.22	0.1585	0.0638
Mercury	94759-03-10 15:36 G	36331142.05	36331142.15	36331142.25	0.1581	0.0827
Venus	94762-08-10 08:24 G	36332390.68	36332390.85	36332391.03	0.1674	0.0140
Mercury	94763-11-26 05:31 G	36332863.71	36332863.73	36332863.75	0.1958	0.1932
Mercury	94766-08-26 02:38 G	36333867.52	36333867.61	36333867.70	0.1586	0.0990
Mercury	94768-07-31 03:21 G	36334572.53	36334572.64	36334572.75	0.1582	0.0465
Mercury	94773-04-16 21:21 G	36336293.23	36336293.39	36336293.55	0.1957	0.0567
Mercury	94776-01-16 14:24 G	36337298.04	36337298.10	36337298.16	0.1588	0.1340

Mercury	94777-12-21 15:07 G	36338003.01	36338003.13	36338003.25	0.1583	0.0109
Mercury	94782-09-06 12:43 G	36339722.88	36339723.03	36339723.18	0.1955	0.0823
Mercury	94787-05-14 02:53 G	36341433.50	36341433.62	36341433.74	0.1584	0.0246
Mercury	94789-04-18 04:05 G	36342138.59	36342138.67	36342138.74	0.1581	0.1222
Venus	94789-12-28 06:00 G	36342392.58	36342392.75	36342392.93	0.1865	0.0105
Mercury	94796-10-03 14:38 G	36344864.01	36344864.11	36344864.22	0.1585	0.0602
Mercury	94798-09-08 15:36 G	36345569.05	36345569.15	36345569.25	0.1581	0.0862
Mercury	94806-02-24 02:38 G	36348294.52	36348294.61	36348294.70	0.1586	0.0953
Mercury	94808-01-30 03:21 G	36348999.53	36348999.64	36348999.75	0.1582	0.0503
Mercury	94812-10-15 22:19 G	36350720.27	36350720.43	36350720.58	0.1957	0.0663
Mercury	94815-07-17 14:24 G	36351725.03	36351725.10	36351725.16	0.1588	0.1308
Mercury	94817-06-21 15:07 G	36352430.01	36352430.13	36352430.25	0.1582	0.0145
Mercury	94822-03-07 13:55 G	36354149.92	36354150.08	36354150.23	0.1955	0.0723
Mercury	94826-11-12 02:53 G	36355860.50	36355860.62	36355860.73	0.1583	0.0215
Venus	94828-06-06 19:12 G	36356433.13	36356433.30	36356433.47	0.1677	0.0370
Mercury	94828-10-17 04:05 G	36356565.60	36356565.67	36356565.74	0.1581	0.1259
Mercury	94836-04-03 14:38 G	36359291.00	36359291.11	36359291.22	0.1585	0.0567
Mercury	94838-03-09 15:36 G	36359996.05	36359996.15	36359996.25	0.1581	0.0895
Moon	94841-12-14 22:19 G	36361372.40	36361372.43	36361372.45	0.1581	0.1559
Mercury	94845-08-25 02:24 G	36362721.51	36362721.60	36362721.70	0.1586	0.0923
Mercury	94847-07-31 03:21 G	36363426.53	36363426.64	36363426.75	0.1582	0.0539
Mercury	94852-04-15 23:17 G	36365147.31	36365147.47	36365147.62	0.1958	0.0757
Mercury	94855-01-15 14:24 G	36366152.03	36366152.10	36366152.17	0.1588	0.1271
Venus	94855-10-25 11:02 G	36366434.79	36366434.96	36366435.13	0.1861	0.0447
Mercury	94856-12-20 15:07 G	36366857.01	36366857.13	36366857.25	0.1583	0.0180
Mercury	94861-09-05 14:53 G	36368576.96	36368577.12	36368577.28	0.1955	0.0625
Mercury	94866-05-13 02:53 G	36370287.50	36370287.62	36370287.74	0.1583	0.0174
Mercury	94868-04-17 04:05 G	36370992.60	36370992.67	36370992.73	0.1581	0.1296
Mercury	94875-10-03 14:38 G	36373718.00	36373718.11	36373718.22	0.1585	0.0532
Mercury	94877-09-07 15:36 G	36374423.06	36374423.15	36374423.25	0.1581	0.0936

Mercury	94885-02-23 02:24 G	36377148.51	36377148.60	36377148.70	0.1586	0.0889
Mercury	94887-01-29 03:21 G	36377853.53	36377853.64	36377853.75	0.1582	0.0573
Mercury	94891-10-16 00:00 G	36379574.35	36379574.50	36379574.65	0.1957	0.0844
Venus	94894-04-04 05:45 G	36380475.58	36380475.74	36380475.90	0.1681	0.0615
Mercury	94894-07-16 14:24 G	36380579.02	36380579.10	36380579.17	0.1588	0.1240
Mercury	94896-06-20 15:07 G	36381284.01	36381284.13	36381284.25	0.1582	0.0216
Mercury	94901-03-07 15:21 G	36383003.98	36383004.14	36383004.30	0.1956	0.0553
Mercury	94905-11-12 02:53 G	36384714.50	36384714.62	36384714.74	0.1583	0.0144
Mercury	94907-10-18 04:05 G	36385419.61	36385419.67	36385419.73	0.1581	0.1334
Mercury	94910-07-28 07:12 G	36386433.78	36386433.80	36386433.82	0.1953	0.1934
Mercury	94915-04-04 14:38 G	36388145.00	36388145.11	36388145.22	0.1585	0.0497
Mercury	94917-03-09 15:36 G	36388850.06	36388850.15	36388850.24	0.1581	0.0970
Moon	94920-12-17 15:50 G	36390228.98	36390229.16	36390229.34	0.1581	0.0108
Earth	94920-12-17 20:53 G	36390229.18	36390229.37	36390229.56	0.1581	0.0054 *
Venus	94921-08-22 16:33 G	36390477.04	36390477.19	36390477.34	0.1857	0.0963
Mercury	94924-08-25 02:24 G	36391575.51	36391575.60	36391575.70	0.1586	0.0851
Venus	94926-04-04 05:02 G	36392162.64	36392162.71	36392162.77	0.1670	0.1538
Mercury	94926-07-31 03:21 G	36392280.53	36392280.64	36392280.75	0.1582	0.0612
Mercury	94931-04-17 00:43 G	36394001.39	36394001.53	36394001.68	0.1957	0.0931
Mercury	94934-01-15 14:09 G	36395006.02	36395006.09	36395006.17	0.1587	0.1208
Mercury	94935-12-21 15:07 G	36395711.01	36395711.13	36395711.24	0.1582	0.0253
Mercury	94940-09-05 16:33 G	36397431.03	36397431.19	36397431.36	0.1956	0.0447
Mercury	94943-06-08 02:09 G	36398436.57	36398436.59	36398436.61	0.1589	0.1558
Mercury	94945-05-13 02:53 G	36399141.50	36399141.62	36399141.73	0.1583	0.0121
Mercury	94947-04-18 04:05 G	36399846.61	36399846.67	36399846.72	0.1581	0.1370
Mercury	94950-01-26 07:41 G	36400860.77	36400860.82	36400860.86	0.1953	0.1869
Mercury	94954-10-03 14:38 G	36402572.00	36402572.11	36402572.22	0.1584	0.0461
Mercury	94956-09-07 15:36 G	36403277.06	36403277.15	36403277.24	0.1581	0.1006
Venus	94960-01-31 16:33 G	36404518.04	36404518.19	36404518.34	0.1684	0.0849
Mercury	94964-02-24 02:24 G	36406002.50	36406002.60	36406002.70	0.1586	0.0818

Mercury	94966-01-29 03:21 G	36406707.53	36406707.64	36406707.75	0.1582	0.0648
Mercury	94970-10-16 01:55 G	36408428.44	36408428.58	36408428.72	0.1958	0.1037
Mercury	94973-07-16 14:24 G	36409433.02	36409433.10	36409433.17	0.1587	0.1171
Mercury	94975-06-21 15:07 G	36410138.01	36410138.13	36410138.24	0.1582	0.0291
Mercury	94980-03-06 17:31 G	36411858.06	36411858.23	36411858.39	0.1956	0.0358
Mercury	94982-12-07 02:09 G	36412863.56	36412863.59	36412863.62	0.1589	0.1525
Mercury	94984-11-11 02:53 G	36413568.50	36413568.62	36413568.74	0.1583	0.0074
Mercury	94986-10-17 04:05 G	36414273.61	36414273.67	36414273.72	0.1581	0.1409
Venus	94987-06-19 21:21 G	36414519.29	36414519.39	36414519.49	0.1852	0.1492
Mercury	94989-07-27 08:53 G	36415287.80	36415287.87	36415287.94	0.1954	0.1764
Venus	94992-01-30 15:36 G	36416205.04	36416205.15	36416205.26	0.1673	0.1307
Mercury	94994-04-03 14:38 G	36416999.00	36416999.11	36416999.22	0.1584	0.0428
Mercury	94996-03-08 15:36 G	36417704.06	36417704.15	36417704.24	0.1581	0.1046

96TH MILLENNIUM CE

This is a list of transits visible from Mars in the 96th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	95003-08-26 02:24 G	36420429.50	36420429.60	36420429.70	0.1586	0.0783		
Mercury	95005-07-31 03:21 G	36421134.53	36421134.64	36421134.74	0.1581	0.0683		
Mercury	95010-04-17 02:38 G	36422855.47	36422855.61	36422855.74	0.1957	0.1112		
Mercury	95013-01-15 14:09 G	36423860.01	36423860.09	36423860.17	0.1587	0.1138		
Mercury	95014-12-21 15:07 G	36424565.01	36424565.13	36424565.24	0.1582	0.0327		
Venus	95019-06-20 12:57 G	36426207.00	36426207.04	36426207.08	0.1867	0.1807		

Mercury	95019-09-06 18:14 G	36426285.09	36426285.26	36426285.42	0.1956	0.0273
Mercury	95022-06-08 02:09 G	36427290.55	36427290.59	36427290.63	0.1589	0.1492
Earth	95023-06-20 18:00 G	36427668.21	36427668.25	36427668.30	0.1958	0.1901
Moon	95023-06-20 20:53 G	36427668.25	36427668.37	36427668.49	0.1958	0.1452 *
Mercury	95024-05-13 02:38 G	36427995.50	36427995.61	36427995.73	0.1583	0.0073
Venus	95025-11-29 02:24 G	36428560.47	36428560.60	36428560.73	0.1688	0.1112
Mercury	95026-04-18 03:50 G	36428700.62	36428700.66	36428700.71	0.1581	0.1447
Mercury	95029-01-26 09:50 G	36429714.83	36429714.91	36429715.00	0.1954	0.1665
Mercury	95033-10-03 14:38 G	36431426.00	36431426.11	36431426.22	0.1584	0.0391
Mercury	95035-09-08 15:36 G	36432131.06	36432131.15	36432131.23	0.1581	0.1082
Mercury	95043-02-24 02:24 G	36434856.50	36434856.60	36434856.70	0.1586	0.0747
Mercury	95045-01-29 03:21 G	36435561.53	36435561.64	36435561.74	0.1581	0.0721
Mercury	95049-10-16 03:36 G	36437282.52	36437282.65	36437282.77	0.1958	0.1211
Mercury	95052-07-16 14:09 G	36438287.01	36438287.09	36438287.17	0.1587	0.1105
Mercury	95054-06-21 14:53 G	36438992.01	36438992.12	36438992.24	0.1582	0.0364
Venus	95057-11-28 01:55 G	36440247.45	36440247.58	36440247.72	0.1677	0.1070
Mercury	95059-03-07 19:12 G	36440712.14	36440712.30	36440712.47	0.1956	0.0176
Mercury	95061-12-07 02:09 G	36441717.54	36441717.59	36441717.63	0.1589	0.1458
Mercury	95063-11-12 02:38 G	36442422.50	36442422.61	36442422.73	0.1583	0.0047
Mercury	95065-10-17 03:50 G	36443127.63	36443127.66	36443127.70	0.1581	0.1483
Mercury	95068-07-27 10:19 G	36444141.84	36444141.93	36444142.03	0.1954	0.1591
Mercury	95073-04-03 14:38 G	36445852.99	36445853.11	36445853.22	0.1584	0.0358
Mercury	95075-03-09 15:36 G	36446558.07	36446558.15	36446558.23	0.1581	0.1117
Mercury	95082-08-25 02:24 G	36449283.49	36449283.60	36449283.70	0.1586	0.0714
Mercury	95084-07-30 03:21 G	36449988.53	36449988.64	36449988.74	0.1581	0.0758
Venus	95085-04-16 18:29 G	36450249.14	36450249.27	36450249.39	0.1862	0.1276
Mercury	95089-04-16 04:33 G	36451709.57	36451709.69	36451709.81	0.1958	0.1307
Venus	95091-09-26 12:57 G	36452602.94	36452603.04	36452603.14	0.1691	0.1361
Mercury	95092-01-15 14:09 G	36452714.01	36452714.09	36452714.18	0.1587	0.1068
Mercury	95093-12-20 14:53 G	36453419.01	36453419.12	36453419.24	0.1582	0.0400

Mercury	95098-09-05 20:09 G	36455139.18	36455139.34	36455139.51	0.1956	0.0081
Mercury	95101-06-08 02:09 G	36456144.54	36456144.59	36456144.64	0.1589	0.1425
Mercury	95103-05-14 02:53 G	36456849.50	36456849.62	36456849.73	0.1583	0.0074
Mercury	95105-04-18 03:50 G	36457554.64	36457554.66	36457554.69	0.1581	0.1522
Mercury	95108-01-27 11:31 G	36458568.87	36458568.98	36458569.08	0.1954	0.1492
Mercury	95112-10-03 14:38 G	36460279.99	36460280.11	36460280.22	0.1584	0.0327
Mercury	95114-09-08 15:36 G	36460985.07	36460985.15	36460985.23	0.1581	0.1158
Mercury	95122-02-24 02:24 G	36463710.49	36463710.60	36463710.70	0.1586	0.0682
Venus	95123-09-26 12:43 G	36464289.87	36464290.03	36464290.18	0.1680	0.0832
Mercury	95124-01-30 03:07 G	36464415.53	36464415.63	36464415.74	0.1581	0.0794
Earth	95125-12-19 04:33 G	36465104.53	36465104.69	36465104.86	0.1581	0.0761
Moon	95125-12-19 10:48 G	36465104.78	36465104.95	36465105.13	0.1581	0.0641 *
Mercury	95128-10-16 05:17 G	36466136.60	36466136.72	36466136.83	0.1958	0.1390
Mercury	95131-07-17 14:09 G	36467141.00	36467141.09	36467141.18	0.1587	0.1035
Mercury	95133-06-21 14:53 G	36467846.01	36467846.12	36467846.24	0.1582	0.0435
Mercury	95138-03-07 20:53 G	36469566.20	36469566.37	36469566.53	0.1957	0.0033
Mercury	95140-12-07 01:55 G	36470571.53	36470571.58	36470571.64	0.1589	0.1392
Mercury	95142-11-12 02:38 G	36471276.50	36471276.61	36471276.73	0.1583	0.0081
Mercury	95144-10-17 03:50 G	36471981.65	36471981.66	36471981.68	0.1581	0.1560
Mercury	95147-07-28 12:43 G	36472995.91	36472996.03	36472996.14	0.1954	0.1386
Venus	95151-02-12 23:17 G	36474291.31	36474291.47	36474291.62	0.1858	0.0726
Mercury	95152-04-03 14:38 G	36474706.99	36474707.11	36474707.22	0.1584	0.0289
Mercury	95154-03-09 15:36 G	36475412.07	36475412.15	36475412.22	0.1581	0.1193
Venus	95157-07-24 23:02 G	36476645.41	36476645.46	36476645.50	0.1695	0.1629
Mercury	95161-08-25 02:24 G	36478137.49	36478137.60	36478137.70	0.1585	0.0644
Mercury	95163-07-31 03:21 G	36478842.54	36478842.64	36478842.74	0.1581	0.0833
Mercury	95168-04-16 06:00 G	36480563.64	36480563.75	36480563.86	0.1958	0.1480
Mercury	95171-01-15 14:09 G	36481568.00	36481568.09	36481568.18	0.1587	0.1003
Mercury	95172-12-20 14:53 G	36482273.01	36482273.12	36482273.23	0.1582	0.0470
Mercury	95177-09-05 22:05 G	36483993.25	36483993.42	36483993.58	0.1956	0.0113

Mercury	95180-06-07 01:55 G	36484998.53	36484998.58	36484998.64	0.1589	0.1357
Mercury	95182-05-13 02:38 G	36485703.49	36485703.61	36485703.73	0.1583	0.0109
Mercury	95187-01-26 12:57 G	36487422.92	36487423.04	36487423.17	0.1954	0.1320
Venus	95189-07-23 23:02 G	36488332.30	36488332.46	36488332.63	0.1683	0.0589
Mercury	95191-10-03 14:24 G	36489133.99	36489134.10	36489134.22	0.1584	0.0257
Mercury	95193-09-07 15:36 G	36489839.07	36489839.15	36489839.22	0.1581	0.1231
Mercury	95201-02-23 02:09 G	36492564.49	36492564.59	36492564.70	0.1585	0.0612
Mercury	95203-01-29 03:07 G	36493269.54	36493269.63	36493269.73	0.1581	0.0870
Earth	95204-12-21 05:17 G	36493961.57	36493961.72	36493961.88	0.1581	0.0888
Moon	95204-12-21 10:33 G	36493961.79	36493961.94	36493962.10	0.1581	0.0822 *
Mercury	95207-10-16 07:12 G	36494990.71	36494990.80	36494990.89	0.1958	0.1588
Mercury	95210-07-16 14:09 G	36495995.00	36495995.09	36495995.18	0.1587	0.0964
Mercury	95212-06-20 14:53 G	36496700.01	36496700.12	36496700.23	0.1582	0.0506
Venus	95216-12-10 04:48 G	36498333.53	36498333.70	36498333.87	0.1853	0.0218
Mercury	95217-03-06 22:48 G	36498420.28	36498420.45	36498420.61	0.1956	0.0195
Mercury	95219-12-07 01:55 G	36499425.52	36499425.58	36499425.64	0.1589	0.1323
Mercury	95221-11-11 02:38 G	36500130.50	36500130.61	36500130.73	0.1583	0.0150
Mercury	95226-07-27 14:09 G	36501849.96	36501850.09	36501850.22	0.1954	0.1212
Mercury	95231-04-03 14:24 G	36503560.99	36503561.10	36503561.22	0.1584	0.0219
Mercury	95233-03-08 15:36 G	36504266.08	36504266.15	36504266.22	0.1581	0.1270
Mercury	95240-08-24 02:09 G	36506991.48	36506991.59	36506991.70	0.1585	0.0575
Mercury	95242-07-30 03:07 G	36507696.54	36507696.63	36507696.73	0.1581	0.0903
Mercury	95247-04-16 07:41 G	36509417.74	36509417.82	36509417.91	0.1958	0.1659
Mercury	95250-01-14 14:09 G	36510421.99	36510422.09	36510422.18	0.1587	0.0933
Mercury	95251-12-20 14:53 G	36511127.01	36511127.12	36511127.23	0.1582	0.0543
Venus	95255-05-21 09:21 G	36512374.72	36512374.89	36512375.07	0.1686	0.0344
Mercury	95256-09-04 23:31 G	36512847.32	36512847.48	36512847.65	0.1957	0.0285
Mercury	95259-06-07 01:55 G	36513852.52	36513852.58	36513852.65	0.1589	0.1288
Mercury	95261-05-12 02:38 G	36514557.49	36514557.61	36514557.73	0.1583	0.0181
Mercury	95266-01-25 15:21 G	36516277.00	36516277.14	36516277.27	0.1954	0.1113

Mercury	95270-10-02 14:24 G	36517987.99	36517988.10	36517988.22	0.1584	0.0182
Mercury	95272-09-06 15:36 G	36518693.08	36518693.15	36518693.21	0.1581	0.1307
Mercury	95280-02-23 02:09 G	36521418.48	36521418.59	36521418.70	0.1585	0.0539
Mercury	95282-01-28 03:07 G	36522123.54	36522123.63	36522123.73	0.1581	0.0946
Venus	95282-10-07 10:19 G	36522375.76	36522375.93	36522376.10	0.1849	0.0301
Mercury	95286-10-15 08:38 G	36523844.79	36523844.86	36523844.93	0.1958	0.1762
Mercury	95289-07-15 13:55 G	36524848.99	36524849.08	36524849.18	0.1587	0.0900
Mercury	95291-06-20 14:53 G	36525554.01	36525554.12	36525554.23	0.1582	0.0579
Mercury	95296-03-06 00:29 G	36527274.36	36527274.52	36527274.69	0.1957	0.0382
Mercury	95298-12-06 01:55 G	36528279.51	36528279.58	36528279.65	0.1589	0.1254
Mercury	95300-11-11 02:38 G	36528984.49	36528984.61	36528984.73	0.1583	0.0216
Mercury	95305-07-27 15:50 G	36530704.02	36530704.16	36530704.30	0.1955	0.1038
Mercury	95310-04-03 14:24 G	36532414.98	36532415.10	36532415.22	0.1584	0.0144
Mercury	95312-03-08 15:36 G	36533120.09	36533120.15	36533120.21	0.1581	0.1344
Mercury	95319-08-25 02:09 G	36535845.48	36535845.59	36535845.70	0.1585	0.0503
Venus	95321-03-18 19:55 G	36536417.15	36536417.33	36536417.50	0.1690	0.0100
Mercury	95321-07-30 03:07 G	36536550.54	36536550.63	36536550.72	0.1581	0.0980
Mercury	95326-04-16 09:36 G	36538271.86	36538271.90	36538271.95	0.1959	0.1861
Mercury	95329-01-14 14:09 G	36539275.99	36539276.09	36539276.18	0.1587	0.0861
Earth	95330-12-19 12:29 G	36539979.98	36539980.02	36539980.06	0.1582	0.1547
Mercury	95330-12-20 14:53 G	36539981.01	36539981.12	36539981.23	0.1582	0.0616
Mercury	95335-09-06 01:26 G	36541701.40	36541701.56	36541701.72	0.1957	0.0476
Mercury	95338-06-07 01:55 G	36542706.50	36542706.58	36542706.65	0.1588	0.1221
Mercury	95340-05-12 02:38 G	36543411.49	36543411.61	36543411.73	0.1583	0.0256
Mercury	95345-01-25 16:48 G	36545131.06	36545131.20	36545131.35	0.1955	0.0938
Mercury	95347-10-28 13:41 G	36546137.06	36546137.07	36546137.08	0.1590	0.1578
Venus	95348-08-04 16:05 G	36546418.01	36546418.17	36546418.32	0.1844	0.0795
Mercury	95349-10-02 14:24 G	36546841.98	36546842.10	36546842.22	0.1584	0.0110
Mercury	95351-09-07 15:36 G	36547547.09	36547547.15	36547547.20	0.1580	0.1384
Mercury	95359-02-23 02:09 G	36550272.48	36550272.59	36550272.70	0.1585	0.0468

Mercury	95361-01-28 03:07 G	36550977.54	36550977.63	36550977.72	0.1581	0.1015
Mercury	95365-10-15 10:19 G	36552698.91	36552698.93	36552698.95	0.1958	0.1940
Mercury	95368-07-15 13:55 G	36553702.98	36553703.08	36553703.18	0.1587	0.0828
Mercury	95370-06-20 14:53 G	36554408.01	36554408.12	36554408.23	0.1582	0.0654
Mercury	95375-03-07 02:09 G	36556128.43	36556128.59	36556128.75	0.1957	0.0559
Mercury	95377-12-06 01:55 G	36557133.50	36557133.58	36557133.65	0.1588	0.1185
Mercury	95379-11-11 02:38 G	36557838.49	36557838.61	36557838.72	0.1583	0.0291
Mercury	95384-07-26 18:00 G	36559558.10	36559558.25	36559558.40	0.1955	0.0832
Earth	95386-06-25 07:41 G	36560256.69	36560256.82	36560256.95	0.1959	0.1472
Moon	95386-06-25 16:48 G	36560257.09	36560257.20	36560257.31	0.1959	0.1583
Venus	95387-01-14 06:14 G	36560459.58	36560459.76	36560459.93	0.1694	0.0164
Mercury	95387-04-28 13:41 G	36560564.04	36560564.07	36560564.09	0.1590	0.1541
Mercury	95389-04-02 14:24 G	36561268.98	36561269.10	36561269.22	0.1584	0.0070
Mercury	95391-03-08 15:36 G	36561974.10	36561974.15	36561974.20	0.1581	0.1421
Mercury	95398-08-24 02:09 G	36564699.48	36564699.59	36564699.70	0.1585	0.0431
Mercury	95400-07-30 03:07 G	36565404.54	36565404.63	36565404.72	0.1581	0.1056
Mercury	95408-01-15 13:55 G	36568129.98	36568130.08	36568130.18	0.1587	0.0794
Mercury	95409-12-20 14:53 G	36568835.01	36568835.12	36568835.22	0.1582	0.0691
Moon	95409-12-22 08:09 G	36568836.64	36568836.84	36568837.04	0.1581	0.0130
Earth	95409-12-22 12:57 G	36568836.85	36568837.04	36568837.23	0.1581	0.0087 *
Venus	95414-06-02 21:21 G	36570460.27	36570460.39	36570460.52	0.1839	0.1296
Mercury	95414-09-06 03:21 G	36570555.48	36570555.64	36570555.79	0.1957	0.0664
Mercury	95417-06-07 01:41 G	36571560.50	36571560.57	36571560.65	0.1588	0.1152
Mercury	95419-05-13 02:38 G	36572265.49	36572265.61	36572265.72	0.1582	0.0329
Mercury	95424-01-26 18:29 G	36573985.12	36573985.27	36573985.42	0.1955	0.0764
Mercury	95426-10-28 13:41 G	36574991.03	36574991.07	36574991.10	0.1590	0.1510
Mercury	95428-10-02 14:24 G	36575695.98	36575696.10	36575696.22	0.1584	0.0044
Mercury	95430-09-07 15:21 G	36576401.10	36576401.14	36576401.19	0.1580	0.1459
Mercury	95438-02-23 02:09 G	36579126.47	36579126.59	36579126.70	0.1585	0.0399
Mercury	95440-01-29 03:07 G	36579831.55	36579831.63	36579831.72	0.1581	0.1092

Mercury	95447-07-16 13:55 G	36582556.98	36582557.08	36582557.18	0.1586	0.0755
Mercury	95449-06-20 14:53 G	36583262.01	36583262.12	36583262.22	0.1582	0.0729
Venus	95452-11-11 15:50 G	36584501.99	36584502.16	36584502.33	0.1697	0.0434
Mercury	95454-03-07 04:05 G	36584982.51	36584982.67	36584982.82	0.1957	0.0751
Mercury	95456-12-06 01:41 G	36585987.49	36585987.57	36585987.65	0.1588	0.1117
Mercury	95458-11-11 02:38 G	36586692.49	36586692.61	36586692.72	0.1582	0.0367
Mercury	95463-07-27 19:41 G	36588412.16	36588412.32	36588412.48	0.1955	0.0654
Mercury	95466-04-28 13:41 G	36589418.03	36589418.07	36589418.11	0.1590	0.1477
Mercury	95468-04-02 14:09 G	36590122.98	36590123.09	36590123.21	0.1584	0.0056
Mercury	95470-03-08 15:36 G	36590828.11	36590828.15	36590828.18	0.1580	0.1498
Mercury	95477-08-24 02:09 G	36593553.47	36593553.59	36593553.70	0.1585	0.0364
Mercury	95479-07-30 03:07 G	36594258.55	36594258.63	36594258.71	0.1581	0.1128
Venus	95480-03-30 03:07 G	36594502.59	36594502.63	36594502.66	0.1835	0.1789
Mercury	95487-01-14 13:55 G	36596983.98	36596984.08	36596984.18	0.1586	0.0722
Mercury	95488-12-19 14:53 G	36597689.01	36597689.12	36597689.22	0.1582	0.0767
Mercury	95493-09-05 04:48 G	36599409.55	36599409.70	36599409.85	0.1958	0.0845
Mercury	95496-06-06 01:41 G	36600414.49	36600414.57	36600414.66	0.1588	0.1082
Mercury	95498-05-12 02:24 G	36601119.49	36601119.60	36601119.72	0.1582	0.0405
Mercury	95503-01-26 20:38 G	36602839.20	36602839.36	36602839.52	0.1955	0.0557
Mercury	95505-10-28 13:26 G	36603845.02	36603845.06	36603845.11	0.1590	0.1441
Mercury	95507-10-03 14:24 G	36604549.98	36604550.10	36604550.21	0.1584	0.0063
Mercury	95509-09-07 15:21 G	36605255.12	36605255.14	36605255.17	0.1580	0.1536
Venus	95512-03-30 17:17 G	36606190.11	36606190.22	36606190.33	0.1850	0.1392
Mercury	95517-02-23 01:55 G	36607980.47	36607980.58	36607980.70	0.1585	0.0330
Venus	95518-09-10 02:09 G	36608544.43	36608544.59	36608544.75	0.1701	0.0690
Mercury	95519-01-29 03:07 G	36608685.55	36608685.63	36608685.71	0.1581	0.1170
Mercury	95526-07-16 13:55 G	36611410.97	36611411.08	36611411.18	0.1586	0.0689
Mercury	95528-06-20 14:38 G	36612116.01	36612116.11	36612116.22	0.1581	0.0803
Mercury	95533-03-07 05:45 G	36613836.60	36613836.74	36613836.89	0.1957	0.0937
Mercury	95535-12-07 01:40 G	36614841.48	36614841.57	36614841.66	0.1588	0.1046

Mercury	95537-11-11 02:24 G	36615546.49	36615546.60	36615546.72	0.1582	0.0439
Mercury	95542-07-27 21:07 G	36617266.22	36617266.38	36617266.54	0.1955	0.0481
Mercury	95545-04-28 13:26 G	36618272.01	36618272.06	36618272.12	0.1590	0.1408
Mercury	95547-04-03 14:09 G	36618976.98	36618977.09	36618977.21	0.1584	0.0084
Mercury	95549-03-08 15:21 G	36619682.14	36619682.14	36619682.15	0.1580	0.1573
Venus	95550-09-09 02:38 G	36620231.54	36620231.61	36620231.68	0.1689	0.1544
Mercury	95551-12-17 12:28 G	36620695.99	36620696.02	36620696.06	0.1953	0.1898
Mercury	95556-08-24 01:55 G	36622407.47	36622407.58	36622407.70	0.1585	0.0293
Mercury	95558-07-30 03:07 G	36623112.55	36623112.63	36623112.70	0.1581	0.1206
Mercury	95566-01-14 13:55 G	36625837.97	36625838.08	36625838.18	0.1586	0.0649
Mercury	95567-12-20 14:38 G	36626543.01	36626543.11	36626543.21	0.1581	0.0842
Mercury	95572-09-05 06:43 G	36628263.64	36628263.78	36628263.92	0.1957	0.1034
Mercury	95575-06-07 01:40 G	36629268.48	36629268.57	36629268.66	0.1588	0.1013
Mercury	95577-05-12 02:24 G	36629973.49	36629973.60	36629973.72	0.1582	0.0480
Venus	95578-01-25 22:19 G	36630232.28	36630232.43	36630232.59	0.1845	0.0868
Mercury	95582-01-25 22:19 G	36631693.26	36631693.43	36631693.59	0.1955	0.0380
Venus	95584-07-07 11:45 G	36632586.84	36632586.99	36632587.13	0.1705	0.0974
Mercury	95584-10-27 13:26 G	36632699.00	36632699.06	36632699.12	0.1590	0.1373
Mercury	95586-10-02 14:09 G	36633403.97	36633404.09	36633404.21	0.1583	0.0110
Mercury	95591-06-17 13:12 G	36635123.00	36635123.05	36635123.11	0.1952	0.1816
Mercury	95596-02-23 01:55 G	36636834.47	36636834.58	36636834.70	0.1585	0.0255
Mercury	95598-01-28 02:52 G	36637539.55	36637539.62	36637539.70	0.1581	0.1243
Mercury	95605-07-15 13:55 G	36640264.97	36640265.08	36640265.18	0.1586	0.0618
Mercury	95607-06-20 14:38 G	36640970.02	36640970.11	36640970.21	0.1581	0.0879
Mercury	95612-03-06 07:26 G	36642690.67	36642690.81	36642690.94	0.1958	0.1122
Mercury	95614-12-06 01:40 G	36643695.48	36643695.57	36643695.66	0.1588	0.0976
Earth	95614-12-22 20:09 G	36643712.17	36643712.34	36643712.51	0.1583	0.0714
Moon	95614-12-23 00:28 G	36643712.36	36643712.52	36643712.68	0.1582	0.0739 *
Venus	95616-07-06 12:28 G	36644273.91	36644274.02	36644274.14	0.1693	0.1289
Mercury	95616-11-10 02:24 G	36644400.49	36644400.60	36644400.71	0.1582	0.0512

Mercury	95621-07-26 23:16 G	36646120.31	36646120.47	36646120.64	0.1955	0.0274
Mercury	95624-04-27 13:26 G	36647126.00	36647126.06	36647126.12	0.1590	0.1336
Mercury	95626-04-02 14:09 G	36647830.97	36647831.09	36647831.21	0.1583	0.0151
Mercury	95630-12-16 14:09 G	36649550.02	36649550.09	36649550.17	0.1953	0.1719
Mercury	95635-08-24 01:55 G	36651261.46	36651261.58	36651261.70	0.1585	0.0216
Mercury	95637-07-29 03:07 G	36651966.56	36651966.63	36651966.69	0.1580	0.1284
Venus	95643-11-23 04:19 G	36654274.52	36654274.68	36654274.85	0.1841	0.0387
Mercury	95645-01-13 13:40 G	36654691.96	36654692.07	36654692.18	0.1586	0.0583
Mercury	95646-12-19 14:38 G	36655397.02	36655397.11	36655397.21	0.1581	0.0915
Venus	95650-05-04 21:21 G	36656629.27	36656629.39	36656629.51	0.1709	0.1254
Mercury	95651-09-05 08:24 G	36657117.72	36657117.85	36657117.98	0.1958	0.1222
Mercury	95654-06-06 01:40 G	36658122.47	36658122.57	36658122.66	0.1588	0.0943
Mercury	95656-05-11 02:24 G	36658827.49	36658827.60	36658827.71	0.1582	0.0548
Mercury	95661-01-24 23:45 G	36660547.32	36660547.49	36660547.65	0.1956	0.0205
Mercury	95663-10-27 13:26 G	36661552.99	36661553.06	36661553.12	0.1590	0.1304
Mercury	95665-10-01 14:09 G	36662257.97	36662258.09	36662258.21	0.1583	0.0185
Mercury	95670-06-16 15:21 G	36663977.04	36663977.14	36663977.23	0.1953	0.1619
Moon	95670-06-25 23:16 G	36663986.26	36663986.47	36663986.68	0.1958	0.0612
Earth	95670-06-26 03:21 G	36663986.44	36663986.64	36663986.83	0.1958	0.0544 *
Mercury	95675-02-22 01:55 G	36665688.46	36665688.58	36665688.70	0.1585	0.0180
Mercury	95677-01-27 02:52 G	36666393.56	36666393.62	36666393.69	0.1581	0.1322
Venus	95682-05-03 22:48 G	36668316.31	36668316.45	36668316.59	0.1696	0.1034
Mercury	95684-07-14 13:40 G	36669118.96	36669119.07	36669119.18	0.1586	0.0544
Mercury	95686-06-19 14:38 G	36669824.02	36669824.11	36669824.21	0.1581	0.0954
Mercury	95691-03-06 09:07 G	36671544.76	36671544.88	36671545.00	0.1958	0.1309
Mercury	95693-12-05 01:26 G	36672549.47	36672549.56	36672549.66	0.1588	0.0908
Moon	95693-12-24 18:43 G	36672569.15	36672569.28	36672569.42	0.1582	0.1058
Earth	95693-12-24 20:38 G	36672569.20	36672569.36	36672569.51	0.1582	0.0908 *
Mercury	95695-11-10 02:24 G	36673254.49	36673254.60	36673254.71	0.1582	0.0588
Mercury	95700-07-27 00:57 G	36674974.37	36674974.54	36674974.70	0.1956	0.0094

Mercury	95703-04-28 13:26 G	36675979.99	36675980.06	36675980.13	0.1590	0.1269
Mercury	95705-04-02 14:09 G	36676684.97	36676685.09	36676685.20	0.1583	0.0222
Venus	95709-09-20 10:19 G	36678316.75	36678316.93	36678317.10	0.1836	0.0119
Mercury	95709-12-16 16:04 G	36678404.06	36678404.17	36678404.27	0.1953	0.1537
Mercury	95714-08-24 01:55 G	36680115.46	36680115.58	36680115.70	0.1585	0.0144
Venus	95716-03-02 06:57 G	36680671.72	36680671.79	36680671.86	0.1712	0.1544
Mercury	95716-07-29 02:52 G	36680820.56	36680820.62	36680820.68	0.1580	0.1357
Mercury	95724-01-14 13:40 G	36683545.96	36683546.07	36683546.18	0.1586	0.0508
Mercury	95725-12-19 14:38 G	36684251.02	36684251.11	36684251.20	0.1581	0.0992
Mercury	95730-09-05 10:04 G	36685971.81	36685971.92	36685972.03	0.1958	0.1410
Mercury	95733-06-06 01:26 G	36686976.47	36686976.56	36686976.66	0.1588	0.0871
Mercury	95735-05-12 02:24 G	36687681.49	36687681.60	36687681.71	0.1582	0.0624
Mercury	95740-01-26 01:55 G	36689401.41	36689401.58	36689401.74	0.1956	0.0047
Mercury	95742-10-27 13:26 G	36690406.98	36690407.06	36690407.13	0.1590	0.1233
Mercury	95744-10-01 14:09 G	36691111.97	36691112.09	36691112.20	0.1583	0.0262
Venus	95748-03-01 08:38 G	36692358.71	36692358.86	36692359.02	0.1700	0.0771
Mercury	95749-06-16 16:48 G	36692831.09	36692831.20	36692831.31	0.1953	0.1439
Mercury	95754-02-22 01:55 G	36694542.46	36694542.58	36694542.70	0.1584	0.0110
Mercury	95756-01-28 02:52 G	36695247.57	36695247.62	36695247.68	0.1580	0.1401
Mercury	95763-07-15 13:40 G	36697972.96	36697973.07	36697973.18	0.1586	0.0474
Mercury	95765-06-19 14:38 G	36698678.02	36698678.11	36698678.20	0.1581	0.1029
Mercury	95770-03-06 10:48 G	36700398.85	36700398.95	36700399.06	0.1958	0.1498
Mercury	95772-12-05 01:26 G	36701403.46	36701403.56	36701403.66	0.1588	0.0835
Mercury	95774-11-10 02:24 G	36702108.49	36702108.60	36702108.70	0.1582	0.0662
Venus	95775-07-18 16:19 G	36702359.01	36702359.18	36702359.34	0.1832	0.0589
Mercury	95779-07-27 02:24 G	36703828.43	36703828.60	36703828.76	0.1956	0.0085
Mercury	95782-04-27 13:12 G	36704833.98	36704834.05	36704834.13	0.1590	0.1200
Mercury	95784-04-01 14:09 G	36705538.97	36705539.09	36705539.20	0.1583	0.0301
Mercury	95788-12-15 18:00 G	36707258.13	36707258.25	36707258.37	0.1953	0.1334
Mercury	95791-09-18 01:12 G	36708264.53	36708264.55	36708264.57	0.1592	0.1559

Mercury	95793-08-23 01:55 G	36708969.46	36708969.58	36708969.69	0.1584	0.0081
Mercury	95795-07-29 02:52 G	36709674.57	36709674.62	36709674.67	0.1580	0.1437
Mercury	95803-01-14 13:40 G	36712399.96	36712400.07	36712400.18	0.1586	0.0433
Mercury	95804-12-19 14:38 G	36713105.02	36713105.11	36713105.20	0.1581	0.1069
Mercury	95809-09-05 11:45 G	36714825.90	36714825.99	36714826.08	0.1958	0.1596
Mercury	95812-06-06 01:26 G	36715830.46	36715830.56	36715830.66	0.1587	0.0801
Venus	95813-12-28 18:43 G	36716401.11	36716401.28	36716401.45	0.1703	0.0507
Mercury	95814-05-12 02:24 G	36716535.49	36716535.60	36716535.70	0.1582	0.0702
Mercury	95819-01-26 03:21 G	36718255.48	36718255.64	36718255.81	0.1956	0.0197
Moon	95819-12-23 22:04 G	36718587.36	36718587.42	36718587.48	0.1584	0.1492
Earth	95819-12-24 03:21 G	36718587.59	36718587.64	36718587.68	0.1584	0.1536
Mercury	95821-10-27 13:12 G	36719260.98	36719261.05	36719261.13	0.1590	0.1164
Mercury	95823-10-02 13:55 G	36719965.97	36719966.08	36719966.20	0.1583	0.0334
Mercury	95828-06-16 18:43 G	36721685.15	36721685.28	36721685.40	0.1953	0.1257
Mercury	95831-03-20 01:12 G	36722691.52	36722691.55	36722691.58	0.1592	0.1528
Mercury	95833-02-22 01:55 G	36723396.46	36723396.58	36723396.69	0.1584	0.0066
Mercury	95835-01-28 02:52 G	36724101.58	36724101.62	36724101.66	0.1580	0.1473
Venus	95841-05-15 22:19 G	36726401.29	36726401.43	36726401.57	0.1827	0.1065
Mercury	95842-07-15 13:40 G	36726826.95	36726827.07	36726827.18	0.1586	0.0401
Mercury	95844-06-19 14:38 G	36727532.03	36727532.11	36727532.19	0.1581	0.1107
Mercury	95849-03-06 12:28 G	36729252.94	36729253.02	36729253.10	0.1959	0.1691
Mercury	95851-12-06 01:26 G	36730257.46	36730257.56	36730257.66	0.1588	0.0762
Mercury	95853-11-10 02:24 G	36730962.49	36730962.60	36730962.70	0.1582	0.0740
Mercury	95858-07-27 04:33 G	36732682.52	36732682.69	36732682.85	0.1956	0.0294
Mercury	95861-04-27 13:12 G	36733687.97	36733688.05	36733688.13	0.1589	0.1127
Mercury	95863-04-02 13:55 G	36734392.97	36734393.08	36734393.20	0.1583	0.0375
Mercury	95867-12-16 19:26 G	36736112.18	36736112.31	36736112.45	0.1954	0.1156
Mercury	95870-09-18 00:57 G	36737118.51	36737118.54	36737118.58	0.1592	0.1494
Mercury	95872-08-23 01:40 G	36737823.46	36737823.57	36737823.69	0.1584	0.0057
Mercury	95874-07-29 02:52 G	36738528.59	36738528.62	36738528.65	0.1580	0.1516

Venus	95879-10-26 04:19 G	36740443.50	36740443.68	36740443.85	0.1707	0.0227
Mercury	95882-01-13 13:26 G	36741253.95	36741254.06	36741254.18	0.1586	0.0369
Mercury	95883-12-19 14:38 G	36741959.03	36741959.11	36741959.19	0.1581	0.1145
Mercury	95888-09-04 13:26 G	36743680.00	36743680.06	36743680.13	0.1958	0.1786
Mercury	95891-06-06 01:26 G	36744684.45	36744684.56	36744684.66	0.1587	0.0728
Mercury	95893-05-11 02:09 G	36745389.49	36745389.59	36745389.70	0.1582	0.0776
Mercury	95898-01-25 04:48 G	36747109.54	36747109.70	36747109.87	0.1956	0.0368
Earth	95898-12-26 04:04 G	36747444.48	36747444.67	36747444.86	0.1583	0.0116
Moon	95898-12-26 06:57 G	36747444.59	36747444.79	36747445.00	0.1583	0.0058 *
Mercury	95900-10-27 13:12 G	36748114.97	36748115.05	36748115.13	0.1589	0.1092
Mercury	95902-10-02 13:55 G	36748819.97	36748820.08	36748820.20	0.1583	0.0410
Venus	95907-03-14 04:04 G	36750443.58	36750443.67	36750443.76	0.1822	0.1540
Mercury	95907-06-17 20:38 G	36750539.22	36750539.36	36750539.50	0.1954	0.1050
Mercury	95910-03-20 00:57 G	36751545.50	36751545.54	36751545.59	0.1591	0.1456
Mercury	95912-02-23 01:40 G	36752250.46	36752250.57	36752250.69	0.1584	0.0061
Mercury	95914-01-28 02:52 G	36752955.60	36752955.62	36752955.64	0.1580	0.1554
Mercury	95921-07-15 13:40 G	36755680.95	36755681.07	36755681.18	0.1586	0.0329
Mercury	95923-06-20 14:38 G	36756386.03	36756386.11	36756386.18	0.1581	0.1185
Mercury	95928-03-06 14:09 G	36758107.05	36758107.09	36758107.13	0.1958	0.1876
Mercury	95930-12-06 01:12 G	36759111.45	36759111.55	36759111.66	0.1587	0.0694
Mercury	95932-11-10 02:09 G	36759816.49	36759816.59	36759816.69	0.1582	0.0818
Mercury	95937-07-27 06:00 G	36761536.59	36761536.75	36761536.92	0.1957	0.0482
Venus	95939-03-13 17:02 G	36762131.11	36762131.21	36762131.30	0.1837	0.1547
Mercury	95940-04-27 13:12 G	36762541.96	36762542.05	36762542.14	0.1589	0.1057
Mercury	95942-04-02 13:55 G	36763246.97	36763247.08	36763247.19	0.1583	0.0444
Venus	95945-08-23 14:09 G	36764485.92	36764486.09	36764486.27	0.1711	0.0046
Mercury	95946-12-16 21:21 G	36764966.24	36764966.39	36764966.53	0.1954	0.0972
Mercury	95949-09-18 00:57 G	36765972.49	36765972.54	36765972.59	0.1592	0.1422
Mercury	95951-08-24 01:40 G	36766677.45	36766677.57	36766677.69	0.1584	0.0085
Mercury	95961-01-13 13:26 G	36770107.95	36770108.06	36770108.18	0.1586	0.0291

Mercury	95962-12-19 14:38 G	36770813.03	36770813.11	36770813.18	0.1581	0.1224
Mercury	95970-06-06 01:26 G	36773538.45	36773538.56	36773538.66	0.1587	0.0656
Mercury	95972-05-11 02:09 G	36774243.49	36774243.59	36774243.69	0.1582	0.0853
Mercury	95977-01-25 06:57 G	36775963.63	36775963.79	36775963.95	0.1956	0.0573
Mercury	95979-10-27 13:12 G	36776968.96	36776969.05	36776969.14	0.1589	0.1020
Mercury	95981-10-01 13:55 G	36777673.97	36777674.08	36777674.19	0.1583	0.0486
Mercury	95986-06-16 22:19 G	36779393.28	36779393.43	36779393.57	0.1954	0.0871
Mercury	95989-03-19 00:57 G	36780399.48	36780399.54	36780399.59	0.1591	0.1388
Mercury	95991-02-22 01:40 G	36781104.45	36781104.57	36781104.69	0.1584	0.0116
Mercury	96000-07-14 13:26 G	36784534.94	36784535.06	36784535.18	0.1585	0.0253

97TH MILLENNIUM CE

This is a list of transits visible from Mars in the 97th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	96002-06-19 14:24 G		36785240.03	36785240.10	36785240.17	0.1581	0.1262	
Venus	96005-01-07 22:33 G		36786173.30	36786173.44	36786173.58	0.1833	0.1051	
Mercury	96009-12-05 01:12 G		36787965.44	36787965.55	36787965.66	0.1587	0.0619	
Venus	96011-06-20 23:16 G		36788528.30	36788528.47	36788528.64	0.1715	0.0341	
Mercury	96011-11-10 02:09 G		36788670.49	36788670.59	36788670.69	0.1582	0.0891	
Mercury	96016-07-26 07:26 G		36790390.66	36790390.81	36790390.97	0.1957	0.0659	
Mercury	96019-04-27 13:12 G		36791395.96	36791396.05	36791396.14	0.1589	0.0985	
Mercury	96021-04-01 13:55 G		36792100.97	36792101.08	36792101.19	0.1583	0.0522	
Mercury	96025-12-15 23:16 G		36793820.32	36793820.47	36793820.63	0.1954	0.0763	

Mercury	96028-09-17 00:57 G	36794826.48	36794826.54	36794826.60	0.1591	0.1349
Mercury	96030-08-23 01:40 G	36795531.45	36795531.57	36795531.69	0.1584	0.0154
Mercury	96040-01-13 13:26 G	36798961.94	36798962.06	36798962.18	0.1585	0.0213
Mercury	96041-12-18 14:24 G	36799667.04	36799667.10	36799667.17	0.1581	0.1304
Mercury	96049-06-05 01:12 G	36802392.44	36802392.55	36802392.66	0.1587	0.0583
Mercury	96051-05-11 02:09 G	36803097.50	36803097.59	36803097.69	0.1581	0.0931
Mercury	96056-01-25 08:38 G	36804817.71	36804817.86	36804818.01	0.1957	0.0764
Mercury	96058-10-26 12:57 G	36805822.95	36805823.04	36805823.14	0.1589	0.0951
Mercury	96060-09-30 13:55 G	36806527.97	36806528.08	36806528.19	0.1583	0.0561
Mercury	96065-06-15 23:45 G	36808247.34	36808247.49	36808247.65	0.1954	0.0688
Mercury	96068-03-18 00:57 G	36809253.47	36809253.54	36809253.60	0.1591	0.1317
Mercury	96070-02-21 01:40 G	36809958.45	36809958.57	36809958.69	0.1584	0.0192
Venus	96070-11-05 05:02 G	36810215.55	36810215.71	36810215.88	0.1828	0.0593
Venus	96077-04-17 08:52 G	36812570.71	36812570.87	36812571.03	0.1719	0.0629
Mercury	96079-07-14 13:26 G	36813388.94	36813389.06	36813389.18	0.1585	0.0179
Mercury	96081-06-18 14:24 G	36814094.04	36814094.10	36814094.17	0.1581	0.1343
Mercury	96088-12-04 01:12 G	36816819.44	36816819.55	36816819.66	0.1587	0.0543
Mercury	96090-11-09 02:09 G	36817524.50	36817524.59	36817524.68	0.1582	0.0969
Mercury	96095-07-26 09:36 G	36819244.75	36819244.90	36819245.05	0.1957	0.0863
Mercury	96098-04-26 12:57 G	36820249.95	36820250.04	36820250.14	0.1589	0.0913
Mercury	96100-04-01 13:55 G	36820954.97	36820955.08	36820955.19	0.1582	0.0601
Moon	96103-12-27 06:57 G	36822319.62	36822319.79	36822319.95	0.1585	0.0665
Earth	96103-12-27 10:33 G	36822319.77	36822319.94	36822320.11	0.1585	0.0709 *
Mercury	96104-12-16 00:57 G	36822674.38	36822674.54	36822674.70	0.1954	0.0579
Mercury	96107-09-18 00:43 G	36823680.47	36823680.53	36823680.60	0.1591	0.1282
Mercury	96109-08-23 01:40 G	36824385.45	36824385.57	36824385.68	0.1584	0.0232
Mercury	96119-01-13 13:26 G	36827815.94	36827816.06	36827816.17	0.1585	0.0147
Mercury	96120-12-18 14:24 G	36828521.05	36828521.10	36828521.16	0.1580	0.1379
Mercury	96128-06-05 01:12 G	36831246.44	36831246.55	36831246.66	0.1587	0.0508
Mercury	96130-05-11 02:09 G	36831951.50	36831951.59	36831951.68	0.1581	0.1008

Mercury	96135-01-25 10:04 G	36833671.78	36833671.92	36833672.07	0.1957	0.0945
Venus	96136-09-02 11:16 G	36834257.79	36834257.97	36834258.14	0.1823	0.0125
Mercury	96137-10-26 12:57 G	36834676.95	36834677.04	36834677.14	0.1589	0.0876
Mercury	96139-10-01 13:55 G	36835381.97	36835382.08	36835382.18	0.1583	0.0640
Venus	96143-02-13 18:14 G	36836613.11	36836613.26	36836613.40	0.1723	0.0932
Mercury	96144-06-16 01:55 G	36837101.42	36837101.58	36837101.75	0.1955	0.0476
Mercury	96147-03-19 00:43 G	36838107.46	36838107.53	36838107.61	0.1591	0.1243
Mercury	96149-02-21 01:40 G	36838812.45	36838812.57	36838812.68	0.1584	0.0270
Mercury	96153-11-05 17:02 G	36840531.19	36840531.21	36840531.23	0.1951	0.1934
Mercury	96158-07-14 13:26 G	36842242.94	36842243.06	36842243.17	0.1585	0.0112
Mercury	96160-06-18 14:24 G	36842948.05	36842948.10	36842948.15	0.1580	0.1422
Mercury	96167-12-05 01:12 G	36845673.43	36845673.55	36845673.66	0.1587	0.0474
Mercury	96169-11-09 02:09 G	36846378.50	36846378.59	36846378.67	0.1581	0.1049
Mercury	96174-07-26 11:16 G	36848098.83	36848098.97	36848099.11	0.1957	0.1058
Venus	96175-02-12 20:52 G	36848300.28	36848300.37	36848300.46	0.1710	0.1435
Mercury	96177-04-26 12:57 G	36849103.94	36849104.04	36849104.14	0.1589	0.0839
Mercury	96179-04-01 13:40 G	36849808.97	36849809.07	36849809.18	0.1582	0.0677
Moon	96182-12-29 05:31 G	36851176.55	36851176.73	36851176.90	0.1584	0.0671
Earth	96182-12-29 12:00 G	36851176.85	36851177.00	36851177.15	0.1584	0.0945 *
Mercury	96183-12-16 02:38 G	36851528.44	36851528.61	36851528.77	0.1954	0.0395
Mercury	96186-09-17 00:43 G	36852534.46	36852534.53	36852534.61	0.1591	0.1208
Mercury	96188-08-22 01:40 G	36853239.45	36853239.57	36853239.68	0.1584	0.0312
Mercury	96193-05-06 17:45 G	36854958.19	36854958.24	36854958.29	0.1952	0.1844
Mercury	96196-02-07 12:43 G	36855965.01	36855965.03	36855965.04	0.1593	0.1575
Mercury	96198-01-12 13:12 G	36856669.94	36856670.05	36856670.17	0.1585	0.0090
Mercury	96199-12-18 14:24 G	36857375.06	36857375.10	36857375.14	0.1580	0.1461
Venus	96202-07-01 17:45 G	36858300.07	36858300.24	36858300.41	0.1819	0.0329
Mercury	96207-06-06 01:12 G	36860100.43	36860100.55	36860100.66	0.1587	0.0432
Venus	96208-12-12 03:07 G	36860655.51	36860655.63	36860655.75	0.1727	0.1243
Mercury	96209-05-11 02:09 G	36860805.50	36860805.59	36860805.67	0.1581	0.1088

Mercury	96214-01-25 12:14 G	36862525.87	36862526.01	36862526.14	0.1957	0.1153
Mercury	96216-10-26 12:57 G	36863530.94	36863531.04	36863531.14	0.1589	0.0802
Mercury	96218-10-01 13:55 G	36864235.97	36864236.08	36864236.18	0.1582	0.0720
Mercury	96223-06-17 03:36 G	36865955.48	36865955.65	36865955.81	0.1955	0.0289
Mercury	96226-03-19 00:43 G	36866961.45	36866961.53	36866961.61	0.1591	0.1173
Mercury	96228-02-22 01:26 G	36867666.45	36867666.56	36867666.68	0.1584	0.0348
Mercury	96232-11-05 18:57 G	36869385.21	36869385.29	36869385.36	0.1951	0.1740
Mercury	96235-08-09 12:28 G	36870392.00	36870392.02	36870392.05	0.1593	0.1540
Mercury	96237-07-14 13:12 G	36871096.93	36871097.05	36871097.17	0.1585	0.0038
Mercury	96239-06-19 14:24 G	36871802.07	36871802.10	36871802.13	0.1580	0.1499
Venus	96240-12-11 06:28 G	36872342.65	36872342.77	36872342.90	0.1714	0.1163
Mercury	96246-12-05 01:12 G	36874527.43	36874527.55	36874527.66	0.1587	0.0400
Mercury	96248-11-09 02:09 G	36875232.50	36875232.59	36875232.67	0.1581	0.1128
Mercury	96253-07-26 12:43 G	36876952.91	36876953.03	36876953.16	0.1958	0.1242
Mercury	96256-04-26 12:57 G	36877957.94	36877958.04	36877958.14	0.1589	0.0766
Mercury	96258-04-01 13:40 G	36878662.97	36878663.07	36878663.18	0.1582	0.0756
Mercury	96262-12-16 04:48 G	36880382.53	36880382.70	36880382.86	0.1955	0.0179
Mercury	96265-09-17 00:43 G	36881388.45	36881388.53	36881388.61	0.1591	0.1132
Mercury	96267-08-23 01:26 G	36882093.45	36882093.56	36882093.68	0.1584	0.0387
Venus	96268-04-28 00:14 G	36882342.35	36882342.51	36882342.66	0.1814	0.0785
Mercury	96272-05-06 19:40 G	36883812.23	36883812.32	36883812.40	0.1951	0.1650
Venus	96274-10-09 12:28 G	36884697.94	36884698.02	36884698.09	0.1731	0.1555
Mercury	96275-02-07 12:28 G	36884818.99	36884819.02	36884819.06	0.1593	0.1505
Mercury	96277-01-12 13:12 G	36885523.94	36885524.05	36885524.17	0.1585	0.0040
Mercury	96278-12-18 14:24 G	36886229.08	36886229.10	36886229.12	0.1580	0.1542
Mercury	96286-06-05 00:57 G	36888954.43	36888954.54	36888954.66	0.1587	0.0361
Mercury	96288-05-10 01:55 G	36889659.51	36889659.58	36889659.66	0.1581	0.1169
Mercury	96293-01-24 13:55 G	36891379.96	36891380.08	36891380.20	0.1957	0.1348
Mercury	96295-10-26 12:57 G	36892384.93	36892385.04	36892385.14	0.1589	0.0729
Mercury	96297-09-30 13:40 G	36893089.97	36893090.07	36893090.17	0.1582	0.0793

Mercury	96302-06-17 05:16 G	36894809.55	36894809.72	36894809.88	0.1955	0.0110
Mercury	96305-03-19 00:43 G	36895815.44	36895815.53	36895815.61	0.1591	0.1100
Venus	96306-10-09 15:50 G	36896385.01	36896385.16	36896385.31	0.1718	0.0873
Mercury	96307-02-22 01:26 G	36896520.45	36896520.56	36896520.68	0.1584	0.0423
Earth	96308-12-27 17:16 G	36897195.17	36897195.22	36897195.28	0.1588	0.1522
Moon	96308-12-27 21:21 G	36897195.34	36897195.39	36897195.44	0.1588	0.1528
Mercury	96311-11-06 20:38 G	36898239.26	36898239.36	36898239.46	0.1952	0.1545
Mercury	96314-08-09 12:28 G	36899245.98	36899246.02	36899246.07	0.1593	0.1467
Mercury	96316-07-14 13:12 G	36899950.93	36899951.05	36899951.17	0.1585	0.0051
Earth	96317-07-03 10:33 G	36900304.76	36900304.94	36900305.13	0.1955	0.0739
Moon	96317-07-03 15:36 G	36900304.97	36900305.15	36900305.33	0.1955	0.0563 *
Mercury	96325-12-05 00:57 G	36903381.43	36903381.54	36903381.66	0.1587	0.0323
Mercury	96327-11-10 01:55 G	36904086.51	36904086.58	36904086.66	0.1581	0.1208
Mercury	96332-07-26 14:52 G	36905807.01	36905807.12	36905807.23	0.1957	0.1449
Venus	96334-02-24 06:43 G	36906384.65	36906384.78	36906384.90	0.1810	0.1236
Mercury	96335-04-27 12:43 G	36906811.93	36906812.03	36906812.14	0.1588	0.0693
Mercury	96337-04-01 13:40 G	36907516.97	36907517.07	36907517.17	0.1582	0.0836
Mercury	96341-12-16 06:14 G	36909236.60	36909236.76	36909236.93	0.1955	0.0034
Mercury	96344-09-17 00:43 G	36910242.44	36910242.53	36910242.61	0.1591	0.1064
Mercury	96346-08-23 01:26 G	36910947.45	36910947.56	36910947.67	0.1583	0.0461
Mercury	96351-05-07 21:36 G	36912666.29	36912666.40	36912666.51	0.1952	0.1453
Mercury	96354-02-07 12:28 G	36913672.97	36913673.02	36913673.07	0.1593	0.1431
Mercury	96356-01-13 13:12 G	36914377.93	36914378.05	36914378.17	0.1585	0.0089
Mercury	96365-06-05 00:57 G	36917808.43	36917808.54	36917808.66	0.1587	0.0283
Venus	96366-02-23 18:00 G	36918072.21	36918072.25	36918072.30	0.1825	0.1762
Mercury	96367-05-11 01:55 G	36918513.51	36918513.58	36918513.65	0.1581	0.1247
Mercury	96372-01-25 15:21 G	36920234.04	36920234.14	36920234.24	0.1958	0.1535
Venus	96372-08-06 01:40 G	36920427.40	36920427.57	36920427.73	0.1722	0.0595
Mercury	96374-10-26 12:43 G	36921238.93	36921239.03	36921239.14	0.1589	0.0655
Mercury	96376-09-30 13:40 G	36921943.97	36921944.07	36921944.17	0.1582	0.0874

Mercury	96381-06-16 07:26 G	36923663.64	36923663.81	36923663.97	0.1955	0.0119
Mercury	96384-03-18 00:43 G	36924669.44	36924669.53	36924669.61	0.1590	0.1024
Mercury	96386-02-21 01:26 G	36925374.45	36925374.56	36925374.67	0.1583	0.0501
Earth	96387-12-30 18:28 G	36926052.08	36926052.27	36926052.46	0.1587	0.0133
Moon	96387-12-31 00:00 G	36926052.32	36926052.50	36926052.68	0.1587	0.0320 *
Mercury	96390-11-05 22:19 G	36927093.31	36927093.43	36927093.55	0.1952	0.1351
Mercury	96393-08-08 12:28 G	36928099.96	36928100.02	36928100.07	0.1593	0.1396
Mercury	96395-07-14 13:12 G	36928804.93	36928805.05	36928805.17	0.1585	0.0129
Venus	96399-12-22 13:12 G	36930426.99	36930427.05	36930427.12	0.1805	0.1660
Mercury	96404-12-04 00:57 G	36932235.42	36932235.54	36932235.66	0.1586	0.0245
Mercury	96406-11-09 01:55 G	36932940.52	36932940.58	36932940.65	0.1581	0.1289
Mercury	96411-07-26 16:33 G	36934661.10	36934661.19	36934661.28	0.1958	0.1648
Mercury	96414-04-26 12:43 G	36935665.93	36935666.03	36935666.14	0.1588	0.0617
Mercury	96416-03-31 13:40 G	36936370.97	36936371.07	36936371.17	0.1582	0.0911
Mercury	96420-12-15 07:55 G	36938090.67	36938090.83	36938091.00	0.1955	0.0197
Mercury	96423-09-17 00:28 G	36939096.43	36939096.52	36939096.61	0.1591	0.0988
Mercury	96425-08-22 01:26 G	36939801.45	36939801.56	36939801.67	0.1583	0.0540
Mercury	96430-05-06 23:16 G	36941520.34	36941520.47	36941520.60	0.1952	0.1254
Venus	96431-12-22 00:14 G	36942114.39	36942114.51	36942114.63	0.1820	0.1294
Mercury	96433-02-06 12:28 G	36942526.96	36942527.02	36942527.08	0.1593	0.1357
Mercury	96435-01-12 13:12 G	36943231.93	36943232.05	36943232.16	0.1585	0.0170
Venus	96438-06-03 10:33 G	36944469.76	36944469.94	36944470.11	0.1726	0.0290
Mercury	96444-06-04 00:57 G	36946662.43	36946662.54	36946662.66	0.1586	0.0205
Mercury	96446-05-10 01:55 G	36947367.52	36947367.58	36947367.64	0.1581	0.1328
Mercury	96451-01-24 17:16 G	36949088.15	36949088.22	36949088.30	0.1958	0.1743
Mercury	96453-10-25 12:43 G	36950092.92	36950093.03	36950093.14	0.1588	0.0578
Mercury	96455-09-30 13:40 G	36950797.98	36950798.07	36950798.16	0.1582	0.0955
Mercury	96460-06-15 08:52 G	36952517.71	36952517.87	36952518.04	0.1956	0.0306
Mercury	96463-03-18 00:28 G	36953523.43	36953523.52	36953523.61	0.1590	0.0952
Mercury	96465-02-20 01:26 G	36954228.45	36954228.56	36954228.67	0.1583	0.0580

Mercury	96469-11-05 00:14 G	36955947.38	36955947.51	36955947.65	0.1952	0.1151
Mercury	96472-08-07 12:28 G	36956953.95	36956954.02	36956954.08	0.1593	0.1322
Mercury	96474-07-13 13:12 G	36957658.93	36957659.05	36957659.16	0.1585	0.0210
Mercury	96483-12-04 00:57 G	36961089.42	36961089.54	36961089.66	0.1586	0.0168
Mercury	96485-11-08 01:55 G	36961794.52	36961794.58	36961794.64	0.1581	0.1369
Mercury	96490-07-25 18:00 G	36963515.20	36963515.25	36963515.31	0.1958	0.1838
Mercury	96493-04-25 12:43 G	36964519.92	36964520.03	36964520.14	0.1588	0.0539
Mercury	96495-03-31 13:40 G	36965224.98	36965225.07	36965225.16	0.1582	0.0993
Venus	96497-10-18 07:12 G	36966156.65	36966156.80	36966156.96	0.1815	0.0862
Mercury	96499-12-15 10:04 G	36966944.76	36966944.92	36966945.09	0.1956	0.0420
Mercury	96502-09-17 00:28 G	36967950.43	36967950.52	36967950.62	0.1590	0.0910
Venus	96504-03-31 19:40 G	36968512.15	36968512.32	36968512.50	0.1730	0.0042
Mercury	96504-08-22 01:26 G	36968655.45	36968655.56	36968655.67	0.1583	0.0621
Mercury	96509-05-07 00:57 G	36970374.40	36970374.54	36970374.68	0.1952	0.1059
Mercury	96512-02-07 12:14 G	36971380.95	36971381.01	36971381.08	0.1593	0.1287
Mercury	96514-01-12 13:12 G	36972085.93	36972086.05	36972086.16	0.1585	0.0251
Mercury	96523-06-05 00:57 G	36975516.42	36975516.54	36975516.65	0.1586	0.0134
Mercury	96525-05-10 01:55 G	36976221.53	36976221.58	36976221.63	0.1581	0.1410
Mercury	96530-01-24 19:12 G	36977942.28	36977942.30	36977942.31	0.1958	0.1945
Mercury	96532-10-25 12:43 G	36978946.92	36978947.03	36978947.14	0.1588	0.0501
Mercury	96534-09-30 13:40 G	36979651.98	36979652.07	36979652.16	0.1582	0.1033
Mercury	96539-06-16 10:33 G	36981371.78	36981371.94	36981372.10	0.1956	0.0494
Mercury	96542-03-18 00:28 G	36982377.42	36982377.52	36982377.62	0.1590	0.0875
Mercury	96544-02-21 01:26 G	36983082.45	36983082.56	36983082.66	0.1583	0.0661
Mercury	96548-11-05 02:09 G	36984801.45	36984801.59	36984801.74	0.1953	0.0947
Mercury	96551-08-08 12:14 G	36985807.94	36985808.01	36985808.09	0.1593	0.1248
Mercury	96553-07-13 12:57 G	36986512.93	36986513.04	36986513.16	0.1585	0.0291
Mercury	96562-12-04 00:57 G	36989943.42	36989943.54	36989943.66	0.1586	0.0089
Venus	96563-08-16 13:40 G	36990198.90	36990199.07	36990199.24	0.1811	0.0412
Mercury	96564-11-08 01:55 G	36990648.54	36990648.58	36990648.62	0.1581	0.1451

Venus	96570-01-27 04:33 G	36992554.52	36992554.69	36992554.87	0.1734	0.0331
Mercury	96572-04-25 12:43 G	36993373.91	36993374.03	36993374.14	0.1588	0.0465
Mercury	96574-03-31 13:40 G	36994078.98	36994079.07	36994079.15	0.1582	0.1076
Mercury	96578-12-15 11:45 G	36995798.83	36995798.99	36995799.15	0.1956	0.0611
Mercury	96581-09-16 00:28 G	36996804.42	36996804.52	36996804.62	0.1590	0.0838
Mercury	96583-08-22 01:12 G	36997509.45	36997509.55	36997509.66	0.1583	0.0700
Mercury	96588-05-06 02:52 G	36999228.47	36999228.62	36999228.77	0.1952	0.0857
Mercury	96591-02-06 12:14 G	37000234.94	37000235.01	37000235.09	0.1593	0.1211
Moon	96592-12-29 19:26 G	37000927.15	37000927.31	37000927.47	0.1590	0.0873
Earth	96592-12-30 01:26 G	37000927.39	37000927.56	37000927.74	0.1590	0.0677 *
Mercury	96593-01-11 12:57 G	37000939.93	37000940.04	37000940.16	0.1584	0.0328
Mercury	96600-06-30 00:00 G	37003665.49	37003665.50	37003665.51	0.1595	0.1585
Earth	96601-07-04 07:12 G	37004034.64	37004034.80	37004034.96	0.1951	0.1140
Moon	96601-07-04 11:45 G	37004034.82	37004034.99	37004035.16	0.1951	0.1235 *
Mercury	96602-06-05 00:57 G	37004370.42	37004370.54	37004370.65	0.1586	0.0073
Mercury	96604-05-10 01:55 G	37005075.54	37005075.58	37005075.62	0.1581	0.1492
Mercury	96611-10-26 12:43 G	37007800.91	37007801.03	37007801.14	0.1588	0.0425
Mercury	96613-09-30 13:40 G	37008505.98	37008506.07	37008506.15	0.1582	0.1116
Mercury	96618-06-16 12:43 G	37010225.88	37010226.03	37010226.19	0.1956	0.0718
Mercury	96621-03-18 00:28 G	37011231.42	37011231.52	37011231.62	0.1590	0.0797
Mercury	96623-02-21 01:26 G	37011936.45	37011936.56	37011936.66	0.1583	0.0743
Mercury	96627-11-06 03:50 G	37013655.51	37013655.66	37013655.82	0.1953	0.0751
Venus	96629-06-13 20:52 G	37014241.20	37014241.37	37014241.54	0.1806	0.0013
Mercury	96630-08-08 12:14 G	37014661.93	37014662.01	37014662.09	0.1592	0.1174
Mercury	96632-07-13 12:57 G	37015366.93	37015367.04	37015367.16	0.1584	0.0367
Venus	96635-11-25 13:26 G	37016596.90	37016597.06	37016597.22	0.1739	0.0652
Mercury	96639-12-30 00:00 G	37018092.48	37018092.50	37018092.53	0.1595	0.1547
Mercury	96641-12-04 00:43 G	37018797.42	37018797.53	37018797.65	0.1586	0.0057
Mercury	96643-11-09 01:55 G	37019502.55	37019502.58	37019502.60	0.1581	0.1534
Mercury	96651-04-26 12:28 G	37022227.91	37022228.02	37022228.14	0.1588	0.0390

Mercury	96653-03-31 13:40 G	37022932.99	37022933.07	37022933.15	0.1582	0.1156
Mercury	96657-12-15 13:12 G	37024652.90	37024653.05	37024653.20	0.1956	0.0801
Mercury	96660-09-16 00:28 G	37025658.41	37025658.52	37025658.62	0.1590	0.0762
Mercury	96662-08-22 01:12 G	37026363.45	37026363.55	37026363.65	0.1583	0.0781
Mercury	96667-05-07 04:48 G	37028082.55	37028082.70	37028082.86	0.1953	0.0649
Mercury	96670-02-06 12:14 G	37029088.93	37029089.01	37029089.09	0.1592	0.1133
Earth	96672-01-03 02:24 G	37029784.46	37029784.60	37029784.75	0.1588	0.0978
Moon	96672-01-03 02:38 G	37029784.47	37029784.61	37029784.75	0.1588	0.1133 *
Mercury	96672-01-12 12:57 G	37029793.93	37029794.04	37029794.16	0.1584	0.0406
Mercury	96679-06-30 00:00 G	37032519.47	37032519.50	37032519.54	0.1595	0.1509
Mercury	96681-06-04 00:57 G	37033224.42	37033224.54	37033224.65	0.1586	0.0066
Mercury	96683-05-10 01:55 G	37033929.57	37033929.58	37033929.58	0.1581	0.1575
Mercury	96690-10-25 12:28 G	37036654.91	37036655.02	37036655.14	0.1588	0.0350
Mercury	96692-09-29 13:40 G	37037359.99	37037360.07	37037360.14	0.1581	0.1200
Venus	96695-04-11 03:36 G	37038283.48	37038283.65	37038283.82	0.1801	0.0443
Mercury	96697-06-15 14:24 G	37039079.95	37039080.10	37039080.24	0.1956	0.0913
Mercury	96700-03-18 00:14 G	37040085.41	37040085.51	37040085.62	0.1590	0.0726
Venus	96701-09-22 22:19 G	37040639.29	37040639.43	37040639.58	0.1743	0.0973
Mercury	96702-02-21 01:12 G	37040790.45	37040790.55	37040790.65	0.1583	0.0819
Mercury	96706-11-06 05:45 G	37042509.58	37042509.74	37042509.90	0.1953	0.0548
Mercury	96709-08-08 12:14 G	37043515.93	37043516.01	37043516.09	0.1592	0.1097
Mercury	96711-07-14 12:57 G	37044220.93	37044221.04	37044221.15	0.1584	0.0444
Mercury	96718-12-30 00:00 G	37046946.46	37046946.50	37046946.54	0.1595	0.1473
Mercury	96720-12-04 00:43 G	37047651.42	37047651.53	37047651.65	0.1586	0.0079
Mercury	96730-04-26 12:28 G	37051081.91	37051082.02	37051082.14	0.1588	0.0309
Mercury	96732-03-31 13:40 G	37051786.99	37051787.07	37051787.14	0.1582	0.1240
Venus	96733-09-22 03:07 G	37052326.54	37052326.63	37052326.71	0.1729	0.1516
Mercury	96736-12-15 15:36 G	37053507.01	37053507.15	37053507.29	0.1956	0.1027
Mercury	96739-09-17 00:28 G	37054512.41	37054512.52	37054512.62	0.1590	0.0683
Mercury	96741-08-22 01:12 G	37055217.45	37055217.55	37055217.65	0.1583	0.0864

Mercury	96746-05-07 06:28 G	37056936.61	37056936.77	37056936.94	0.1953	0.0454
Mercury	96749-02-06 12:14 G	37057942.92	37057943.01	37057943.09	0.1592	0.1062
Mercury	96751-01-12 12:57 G	37058647.93	37058648.04	37058648.15	0.1584	0.0485
Mercury	96755-09-26 22:04 G	37060366.39	37060366.42	37060366.45	0.1949	0.1913
Mercury	96758-06-30 00:00 G	37061373.45	37061373.50	37061373.55	0.1595	0.1435
Mercury	96760-06-04 00:43 G	37062078.41	37062078.53	37062078.65	0.1586	0.0108
Venus	96761-02-06 10:33 G	37062325.79	37062325.94	37062326.09	0.1797	0.0869
Venus	96767-07-21 07:12 G	37064681.68	37064681.80	37064681.91	0.1747	0.1305
Mercury	96769-10-25 12:28 G	37065508.91	37065509.02	37065509.14	0.1588	0.0269
Mercury	96771-09-30 13:26 G	37066214.00	37066214.06	37066214.13	0.1581	0.1280
Mercury	96776-06-15 15:50 G	37067934.03	37067934.16	37067934.30	0.1956	0.1104
Mercury	96779-03-18 00:14 G	37068939.41	37068939.51	37068939.62	0.1590	0.0647
Mercury	96781-02-20 01:12 G	37069644.45	37069644.55	37069644.65	0.1583	0.0902
Mercury	96785-11-05 07:40 G	37071363.66	37071363.82	37071363.99	0.1954	0.0337
Mercury	96788-08-07 12:14 G	37072369.92	37072370.01	37072370.10	0.1592	0.1019
Mercury	96790-07-13 12:57 G	37073074.93	37073075.04	37073075.15	0.1584	0.0525
Mercury	96795-03-27 23:02 G	37074793.40	37074793.46	37074793.51	0.1949	0.1816
Mercury	96797-12-29 00:00 G	37075800.44	37075800.50	37075800.55	0.1594	0.1397
Earth	96797-12-31 07:40 G	37075802.76	37075802.82	37075802.88	0.1593	0.1511
Moon	96797-12-31 13:12 G	37075802.96	37075803.05	37075803.14	0.1593	0.1355
Venus	96799-07-20 12:14 G	37076368.89	37076369.01	37076369.14	0.1733	0.1225
Mercury	96799-12-04 00:43 G	37076505.42	37076505.53	37076505.65	0.1586	0.0154
Mercury	96809-04-25 12:28 G	37079935.90	37079936.02	37079936.14	0.1588	0.0230
Mercury	96811-03-31 13:26 G	37080641.00	37080641.06	37080641.13	0.1581	0.1324
Mercury	96815-12-15 17:02 G	37082361.09	37082361.21	37082361.34	0.1957	0.1224
Mercury	96818-09-16 00:14 G	37083366.40	37083366.51	37083366.62	0.1590	0.0607
Mercury	96820-08-21 01:12 G	37084071.45	37084071.55	37084071.64	0.1583	0.0942
Mercury	96825-05-06 08:24 G	37085790.69	37085790.85	37085791.02	0.1953	0.0249
Venus	96826-12-04 17:45 G	37086368.12	37086368.24	37086368.36	0.1792	0.1273
Mercury	96828-02-06 12:00 G	37086796.91	37086797.00	37086797.10	0.1592	0.0984

Mercury	96830-01-11 12:57 G	37087501.93	37087502.04	37087502.15	0.1584	0.0565
Venus	96833-05-17 15:50 G	37088724.10	37088724.16	37088724.22	0.1751	0.1635
Mercury	96834-09-25 23:45 G	37089220.41	37089220.49	37089220.56	0.1950	0.1722
Mercury	96837-06-29 00:00 G	37090227.44	37090227.50	37090227.55	0.1594	0.1360
Mercury	96839-06-04 00:43 G	37090932.41	37090932.53	37090932.65	0.1586	0.0188
Mercury	96848-10-24 12:28 G	37094362.90	37094363.02	37094363.14	0.1588	0.0188
Mercury	96850-09-29 13:26 G	37095068.01	37095068.06	37095068.12	0.1581	0.1364
Mercury	96855-06-15 18:00 G	37096788.13	37096788.25	37096788.37	0.1957	0.1330
Mercury	96858-03-17 00:14 G	37097793.40	37097793.51	37097793.62	0.1590	0.0566
Venus	96858-12-04 03:21 G	37098055.56	37098055.64	37098055.72	0.1807	0.1597
Mercury	96860-02-20 01:12 G	37098498.46	37098498.55	37098498.64	0.1583	0.0986
Mercury	96864-11-04 09:21 G	37100217.73	37100217.89	37100218.06	0.1954	0.0144
Venus	96865-05-16 20:52 G	37100411.23	37100411.37	37100411.52	0.1737	0.0907
Mercury	96867-08-07 12:00 G	37101223.91	37101224.00	37101224.10	0.1592	0.0946
Mercury	96869-07-12 12:57 G	37101928.93	37101929.04	37101929.15	0.1584	0.0607
Mercury	96874-03-27 00:43 G	37103647.44	37103647.53	37103647.62	0.1950	0.1613
Mercury	96876-12-27 23:45 G	37104654.43	37104654.49	37104654.56	0.1594	0.1323
Moon	96877-01-02 07:55 G	37104659.65	37104659.83	37104660.00	0.1591	0.0048
Earth	96877-01-02 09:21 G	37104659.70	37104659.89	37104660.08	0.1591	0.0165 *
Mercury	96878-12-03 00:43 G	37105359.41	37105359.53	37105359.64	0.1586	0.0229
Mercury	96888-04-24 12:28 G	37108789.90	37108790.02	37108790.14	0.1587	0.0150
Mercury	96890-03-30 13:26 G	37109495.01	37109495.06	37109495.11	0.1581	0.1404
Venus	96892-10-01 00:57 G	37110410.49	37110410.54	37110410.60	0.1787	0.1678
Mercury	96894-12-14 18:43 G	37111215.16	37111215.28	37111215.39	0.1957	0.1416
Mercury	96897-09-15 00:14 G	37112220.40	37112220.51	37112220.62	0.1590	0.0528
Mercury	96899-08-21 01:12 G	37112925.46	37112925.55	37112925.64	0.1583	0.1027
Mercury	96904-05-06 10:33 G	37114644.77	37114644.94	37114645.10	0.1954	0.0060
Mercury	96907-02-06 12:00 G	37115650.91	37115651.00	37115651.10	0.1592	0.0905
Mercury	96909-01-11 12:57 G	37116355.93	37116356.04	37116356.15	0.1584	0.0648
Mercury	96913-09-26 01:40 G	37118074.47	37118074.57	37118074.68	0.1950	0.1506

Mercury	96916-06-28 23:45 G	37119081.43	37119081.49	37119081.56	0.1594	0.1284
Mercury	96918-06-04 00:43 G	37119786.41	37119786.53	37119786.65	0.1585	0.0271
Venus	96924-10-01 10:48 G	37122097.82	37122097.95	37122098.08	0.1803	0.1183
Mercury	96927-10-25 12:28 G	37123216.90	37123217.02	37123217.13	0.1587	0.0123
Mercury	96929-09-29 13:26 G	37123922.02	37123922.06	37123922.11	0.1581	0.1449
Venus	96931-03-15 06:00 G	37124453.59	37124453.75	37124453.92	0.1741	0.0597
Mercury	96934-06-15 19:40 G	37125642.22	37125642.32	37125642.42	0.1957	0.1529
Mercury	96937-03-17 00:14 G	37126647.40	37126647.51	37126647.62	0.1589	0.0489
Mercury	96939-02-20 01:12 G	37127352.46	37127352.55	37127352.63	0.1582	0.1067
Mercury	96943-11-05 11:16 G	37129071.80	37129071.97	37129072.14	0.1954	0.0065
Mercury	96946-08-07 12:00 G	37130077.90	37130078.00	37130078.10	0.1592	0.0867
Mercury	96948-07-12 12:57 G	37130782.93	37130783.04	37130783.14	0.1584	0.0689
Mercury	96953-03-27 02:24 G	37132501.49	37132501.60	37132501.71	0.1950	0.1419
Mercury	96955-12-28 23:45 G	37133508.42	37133508.49	37133508.56	0.1594	0.1246
Mercury	96957-12-03 00:43 G	37134213.41	37134213.53	37134213.64	0.1586	0.0314
Mercury	96967-04-25 12:28 G	37137643.90	37137644.02	37137644.13	0.1587	0.0077
Mercury	96969-03-30 13:26 G	37138349.02	37138349.06	37138349.10	0.1581	0.1489
Mercury	96973-12-14 20:52 G	37140069.28	37140069.37	37140069.46	0.1957	0.1642
Mercury	96976-09-15 00:14 G	37141074.40	37141074.51	37141074.62	0.1589	0.0447
Mercury	96978-08-21 01:12 G	37141779.47	37141779.55	37141779.63	0.1582	0.1111
Mercury	96983-05-06 12:00 G	37143498.84	37143499.00	37143499.17	0.1954	0.0171
Mercury	96986-02-05 12:00 G	37144504.90	37144505.00	37144505.10	0.1592	0.0830
Mercury	96988-01-11 12:57 G	37145209.93	37145210.04	37145210.14	0.1584	0.0731
Venus	96990-07-29 17:31 G	37146140.08	37146140.23	37146140.39	0.1798	0.0753
Mercury	96992-09-25 03:36 G	37146928.53	37146928.65	37146928.78	0.1950	0.1301
Mercury	96995-06-28 23:45 G	37147935.42	37147935.49	37147935.57	0.1594	0.1206
Venus	96997-01-09 14:24 G	37148495.93	37148496.10	37148496.28	0.1746	0.0265
Mercury	96997-06-03 00:28 G	37148640.41	37148640.52	37148640.64	0.1585	0.0354

98TH MILLENNIUM CE

This is a list of transits visible from Mars in the 98th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	97004-11-19 11:31	G	37151365.98	37151365.98	37151365.99	0.1597	0.1587	
Mercury	97006-10-25 12:28	G	37152070.90	37152071.02	37152071.13	0.1587	0.0066	
Mercury	97008-09-29 13:26	G	37152776.03	37152776.06	37152776.09	0.1581	0.1531	
Mercury	97013-06-15 21:07	G	37154496.31	37154496.38	37154496.46	0.1957	0.1722	
Mercury	97016-03-17 00:14	G	37155501.39	37155501.51	37155501.62	0.1589	0.0411	
Mercury	97018-02-20 01:12	G	37156206.47	37156206.55	37156206.63	0.1582	0.1152	
Mercury	97022-11-05 13:12	G	37157925.89	37157926.05	37157926.22	0.1954	0.0291	
Mercury	97025-08-07 12:00	G	37158931.90	37158932.00	37158932.10	0.1591	0.0786	
Mercury	97027-07-13 12:57	G	37159636.93	37159637.04	37159637.14	0.1584	0.0773	
Mercury	97032-03-27 04:33	G	37161355.56	37161355.69	37161355.82	0.1950	0.1205	
Mercury	97034-12-28 23:45	G	37162362.41	37162362.49	37162362.57	0.1594	0.1168	
Mercury	97036-12-03 00:43	G	37163067.41	37163067.53	37163067.64	0.1585	0.0396	
Mercury	97044-05-20 11:31	G	37165792.96	37165792.98	37165793.01	0.1597	0.1549	
Mercury	97046-04-25 12:14	G	37166497.90	37166498.01	37166498.13	0.1587	0.0040	
Mercury	97048-03-30 13:26	G	37167203.06	37167203.06	37167203.07	0.1581	0.1575	
Mercury	97052-12-14 22:19	G	37168923.38	37168923.43	37168923.49	0.1957	0.1845	
Mercury	97055-09-16 00:14	G	37169928.39	37169928.51	37169928.62	0.1589	0.0373	
Venus	97056-05-27 01:12	G	37170182.38	37170182.55	37170182.72	0.1794	0.0355	
Mercury	97057-08-21 00:57	G	37170633.47	37170633.54	37170633.62	0.1582	0.1192	
Mercury	97062-05-06 13:55	G	37172352.91	37172353.08	37172353.24	0.1954	0.0370	

Venus	97062-11-07 23:02 G	37172538.28	37172538.46	37172538.63	0.1750	0.0087
Mercury	97065-02-05 12:00 G	37173358.89	37173359.00	37173359.10	0.1592	0.0751
Mercury	97067-01-11 12:57 G	37174063.94	37174064.04	37174064.14	0.1584	0.0814
Mercury	97071-09-26 05:16 G	37175782.58	37175782.72	37175782.86	0.1951	0.1104
Mercury	97074-06-28 23:45 G	37176789.41	37176789.49	37176789.57	0.1594	0.1129
Mercury	97076-06-03 00:28 G	37177494.41	37177494.52	37177494.64	0.1585	0.0433
Earth	97082-01-03 15:07 G	37179534.96	37179535.13	37179535.31	0.1595	0.0674
Moon	97082-01-03 17:02 G	37179535.02	37179535.21	37179535.40	0.1595	0.0532 *
Mercury	97083-11-19 11:31 G	37180219.95	37180219.98	37180220.02	0.1597	0.1508
Mercury	97085-10-24 12:14 G	37180924.90	37180925.01	37180925.13	0.1587	0.0079
Mercury	97092-06-14 23:16 G	37183350.46	37183350.47	37183350.49	0.1957	0.1947
Mercury	97095-03-17 00:14 G	37184355.39	37184355.51	37184355.62	0.1589	0.0334
Mercury	97097-02-19 01:12 G	37185060.47	37185060.55	37185060.62	0.1582	0.1238
Mercury	97101-11-05 14:52 G	37186779.96	37186780.12	37186780.28	0.1954	0.0485
Mercury	97104-08-07 11:45 G	37187785.89	37187785.99	37187786.10	0.1591	0.0714
Mercury	97106-07-13 12:43 G	37188490.94	37188491.03	37188491.13	0.1583	0.0855
Mercury	97111-03-28 06:14 G	37190209.62	37190209.76	37190209.91	0.1951	0.0998
Mercury	97113-12-28 23:45 G	37191216.40	37191216.49	37191216.57	0.1594	0.1091
Mercury	97115-12-04 00:28 G	37191921.41	37191921.52	37191921.63	0.1585	0.0472
Venus	97122-03-25 08:24 G	37194224.67	37194224.85	37194225.02	0.1789	0.0072
Mercury	97123-05-21 11:31 G	37194646.94	37194646.98	37194647.02	0.1597	0.1472
Mercury	97125-04-25 12:14 G	37195351.89	37195352.01	37195352.13	0.1587	0.0096
Venus	97128-09-05 07:40 G	37196580.65	37196580.82	37196580.99	0.1754	0.0413
Mercury	97134-09-16 00:00 G	37198782.39	37198782.50	37198782.62	0.1589	0.0294
Mercury	97136-08-21 00:57 G	37199487.48	37199487.54	37199487.61	0.1582	0.1279
Mercury	97141-05-06 15:50 G	37201207.01	37201207.16	37201207.32	0.1955	0.0596
Mercury	97144-02-06 12:00 G	37202212.89	37202213.00	37202213.10	0.1591	0.0671
Mercury	97146-01-11 12:43 G	37202917.94	37202918.03	37202918.13	0.1584	0.0898
Mercury	97150-09-26 07:12 G	37204636.65	37204636.80	37204636.95	0.1951	0.0891
Mercury	97153-06-28 23:45 G	37205643.40	37205643.49	37205643.57	0.1594	0.1054

Mercury	97155-06-04 00:28 G	37206348.41	37206348.52	37206348.63	0.1585	0.0517
Earth	97161-01-06 16:33 G	37208392.04	37208392.19	37208392.34	0.1593	0.0996
Moon	97161-01-06 23:02 G	37208392.30	37208392.46	37208392.62	0.1593	0.0899 *
Mercury	97162-11-19 11:31 G	37209073.93	37209073.98	37209074.03	0.1596	0.1435
Mercury	97164-10-24 12:14 G	37209778.89	37209779.01	37209779.13	0.1587	0.0132
Mercury	97174-03-17 00:00 G	37213209.39	37213209.50	37213209.62	0.1589	0.0251
Mercury	97176-02-20 00:57 G	37213914.48	37213914.54	37213914.61	0.1582	0.1318
Mercury	97180-11-04 16:33 G	37215634.04	37215634.19	37215634.35	0.1955	0.0687
Mercury	97183-08-07 11:45 G	37216639.89	37216639.99	37216640.10	0.1591	0.0632
Mercury	97185-07-12 12:43 G	37217344.94	37217345.03	37217345.13	0.1583	0.0938
Venus	97188-01-20 15:36 G	37218266.98	37218267.15	37218267.32	0.1784	0.0465
Mercury	97190-03-27 07:55 G	37219063.68	37219063.83	37219063.98	0.1951	0.0797
Mercury	97192-12-27 23:31 G	37220070.40	37220070.48	37220070.57	0.1594	0.1014
Venus	97194-07-03 15:50 G	37220623.00	37220623.16	37220623.31	0.1759	0.0764
Mercury	97194-12-03 00:28 G	37220775.41	37220775.52	37220775.63	0.1585	0.0555
Mercury	97202-05-20 11:31 G	37223500.92	37223500.98	37223501.03	0.1596	0.1392
Mercury	97204-04-24 12:14 G	37224205.89	37224206.01	37224206.13	0.1587	0.0175
Mercury	97213-09-15 00:00 G	37227636.39	37227636.50	37227636.62	0.1589	0.0209
Mercury	97215-08-21 00:57 G	37228341.49	37228341.54	37228341.60	0.1582	0.1365
Mercury	97220-05-05 17:31 G	37230061.08	37230061.23	37230061.38	0.1955	0.0792
Mercury	97223-02-05 11:45 G	37231066.88	37231066.99	37231067.10	0.1591	0.0593
Mercury	97225-01-10 12:43 G	37231771.94	37231772.03	37231772.12	0.1583	0.0980
Mercury	97229-09-25 09:07 G	37233490.72	37233490.88	37233491.04	0.1951	0.0681
Mercury	97232-06-27 23:31 G	37234497.39	37234497.48	37234497.58	0.1594	0.0974
Mercury	97234-06-03 00:28 G	37235202.41	37235202.52	37235202.63	0.1585	0.0596
Mercury	97241-11-18 11:16 G	37237927.92	37237927.97	37237928.03	0.1596	0.1359
Mercury	97243-10-24 12:14 G	37238632.89	37238633.01	37238633.13	0.1587	0.0215
Moon	97248-07-09 18:43 G	37240353.10	37240353.28	37240353.47	0.1945	0.0145
Earth	97248-07-09 20:09 G	37240353.15	37240353.34	37240353.54	0.1945	0.0491 *
Mercury	97253-03-16 00:00 G	37242063.38	37242063.50	37242063.62	0.1589	0.0169

Venus	97253-11-16 23:16 G	37242309.31	37242309.47	37242309.62	0.1780	0.0851
Mercury	97255-02-19 00:57 G	37242768.49	37242768.54	37242768.59	0.1582	0.1405
Mercury	97259-11-04 18:43 G	37244488.13	37244488.28	37244488.43	0.1955	0.0913
Venus	97260-04-30 00:14 G	37244665.38	37244665.51	37244665.65	0.1763	0.1110
Mercury	97262-08-06 11:45 G	37245493.88	37245493.99	37245494.10	0.1591	0.0549
Mercury	97264-07-11 12:43 G	37246198.94	37246199.03	37246199.12	0.1583	0.1022
Mercury	97269-03-26 09:50 G	37247917.75	37247917.91	37247918.07	0.1951	0.0584
Mercury	97271-12-27 23:31 G	37248924.39	37248924.48	37248924.57	0.1593	0.0935
Mercury	97273-12-02 00:28 G	37249629.41	37249629.52	37249629.63	0.1585	0.0641
Mercury	97281-05-19 11:16 G	37252354.91	37252354.97	37252355.04	0.1596	0.1319
Mercury	97283-04-24 12:14 G	37253059.89	37253060.01	37253060.12	0.1587	0.0257
Earth	97287-01-03 20:52 G	37254410.32	37254410.37	37254410.43	0.1600	0.1516
Venus	97292-04-29 06:28 G	37256352.69	37256352.77	37256352.86	0.1749	0.1500
Mercury	97292-09-14 00:00 G	37256490.38	37256490.50	37256490.62	0.1589	0.0129
Mercury	97294-08-20 00:57 G	37257195.50	37257195.54	37257195.59	0.1582	0.1446
Mercury	97299-05-05 19:11 G	37258915.16	37258915.30	37258915.44	0.1955	0.0994
Mercury	97302-02-05 11:45 G	37259920.88	37259920.99	37259921.10	0.1591	0.0512
Mercury	97304-01-11 12:43 G	37260625.94	37260626.03	37260626.12	0.1583	0.1064
Mercury	97308-09-25 10:48 G	37262344.79	37262344.95	37262345.11	0.1952	0.0478
Mercury	97311-06-28 23:31 G	37263351.39	37263351.48	37263351.58	0.1593	0.0894
Mercury	97313-06-03 00:28 G	37264056.41	37264056.52	37264056.62	0.1585	0.0682
Venus	97319-09-15 06:43 G	37266351.66	37266351.78	37266351.90	0.1775	0.1240
Mercury	97320-11-18 11:16 G	37266781.91	37266781.97	37266782.04	0.1596	0.1278
Mercury	97322-10-24 12:14 G	37267486.89	37267487.01	37267487.12	0.1587	0.0300
Venus	97326-02-26 08:24 G	37268707.75	37268707.85	37268707.94	0.1768	0.1474
Mercury	97332-03-16 00:00 G	37270917.38	37270917.50	37270917.62	0.1589	0.0090
Mercury	97334-02-19 00:57 G	37271622.51	37271622.54	37271622.58	0.1582	0.1492
Mercury	97338-11-04 20:24 G	37273342.21	37273342.35	37273342.48	0.1955	0.1114
Mercury	97341-08-06 11:45 G	37274347.87	37274347.99	37274348.10	0.1591	0.0476
Mercury	97343-07-12 12:43 G	37275052.95	37275053.03	37275053.11	0.1583	0.1106

Mercury	97348-03-26 11:45 G	37276771.83	37276771.99	37276772.15	0.1951	0.0374
Mercury	97350-12-27 23:31 G	37277778.38	37277778.48	37277778.58	0.1593	0.0855
Venus	97351-09-14 15:07 G	37278039.05	37278039.13	37278039.22	0.1790	0.1540
Mercury	97352-12-02 00:14 G	37278483.41	37278483.51	37278483.62	0.1585	0.0722
Mercury	97357-08-16 02:38 G	37280201.57	37280201.61	37280201.66	0.1947	0.1879
Venus	97358-02-25 15:07 G	37280395.00	37280395.13	37280395.26	0.1753	0.1173
Mercury	97360-05-19 11:16 G	37281208.90	37281208.97	37281209.04	0.1596	0.1240
Mercury	97362-04-24 12:14 G	37281913.89	37281914.01	37281914.12	0.1587	0.0342
Moon	97366-01-06 15:50 G	37283266.98	37283267.16	37283267.35	0.1598	0.0222
Earth	97366-01-06 22:19 G	37283267.24	37283267.43	37283267.62	0.1598	0.0154 *
Mercury	97371-09-15 00:00 G	37285344.38	37285344.50	37285344.61	0.1589	0.0071
Mercury	97373-08-20 00:57 G	37286049.51	37286049.54	37286049.57	0.1582	0.1534
Mercury	97378-05-05 21:21 G	37287769.26	37287769.39	37287769.52	0.1956	0.1223
Mercury	97381-02-04 11:45 G	37288774.87	37288774.99	37288775.10	0.1591	0.0430
Mercury	97383-01-10 12:43 G	37289479.95	37289480.03	37289480.11	0.1583	0.1150
Venus	97385-07-12 14:38 G	37290394.04	37290394.11	37290394.18	0.1770	0.1603
Mercury	97387-09-25 12:43 G	37291198.86	37291199.03	37291199.19	0.1952	0.0268
Mercury	97390-06-27 23:31 G	37292205.38	37292205.48	37292205.58	0.1593	0.0816
Mercury	97392-06-02 00:14 G	37292910.41	37292910.51	37292910.62	0.1585	0.0769
Mercury	97397-02-14 03:50 G	37294628.59	37294628.66	37294628.73	0.1948	0.1763
Mercury	97399-11-18 11:16 G	37295635.89	37295635.97	37295636.04	0.1596	0.1201
Mercury	97401-10-24 12:00 G	37296340.89	37296341.00	37296341.12	0.1586	0.0381
Mercury	97409-04-10 23:02 G	37299066.45	37299066.46	37299066.47	0.1599	0.1587
Mercury	97411-03-16 23:45 G	37299771.38	37299771.49	37299771.61	0.1589	0.0062
Mercury	97413-02-19 00:57 G	37300476.53	37300476.54	37300476.54	0.1582	0.1575
Venus	97417-07-12 22:19 G	37302081.30	37302081.43	37302081.57	0.1785	0.1131
Mercury	97417-11-04 21:50 G	37302196.29	37302196.41	37302196.54	0.1955	0.1315
Mercury	97420-08-06 11:31 G	37303201.87	37303201.98	37303202.10	0.1591	0.0393
Mercury	97422-07-12 12:43 G	37303906.95	37303907.03	37303907.10	0.1583	0.1193
Venus	97423-12-24 23:02 G	37304437.31	37304437.46	37304437.61	0.1757	0.0819

Mercury	97427-03-27 13:26 G	37305625.89	37305626.06	37305626.23	0.1952	0.0166
Mercury	97429-12-27 23:31 G	37306632.38	37306632.48	37306632.58	0.1593	0.0775
Mercury	97431-12-03 00:14 G	37307337.41	37307337.51	37307337.61	0.1585	0.0807
Mercury	97436-08-16 05:02 G	37309055.62	37309055.71	37309055.80	0.1948	0.1650
Mercury	97439-05-20 11:16 G	37310062.89	37310062.97	37310063.05	0.1596	0.1159
Mercury	97441-04-24 12:00 G	37310767.89	37310768.00	37310768.12	0.1586	0.0427
Moon	97445-01-09 20:38 G	37312124.32	37312124.36	37312124.39	0.1596	0.1564
Mercury	97448-10-09 23:02 G	37313493.43	37313493.46	37313493.48	0.1599	0.1549
Mercury	97450-09-14 23:45 G	37314198.38	37314198.49	37314198.61	0.1588	0.0052
Mercury	97457-05-05 22:48 G	37316623.34	37316623.45	37316623.56	0.1956	0.1424
Mercury	97460-02-05 11:31 G	37317628.87	37317628.98	37317629.10	0.1591	0.0352
Mercury	97462-01-10 12:28 G	37318333.95	37318334.02	37318334.10	0.1583	0.1236
Mercury	97466-09-25 14:24 G	37320052.94	37320053.10	37320053.27	0.1952	0.0077
Mercury	97469-06-27 23:16 G	37321059.37	37321059.47	37321059.58	0.1593	0.0738
Mercury	97471-06-03 00:14 G	37321764.41	37321764.51	37321764.61	0.1585	0.0847
Mercury	97476-02-15 05:16 G	37323482.63	37323482.72	37323482.82	0.1948	0.1572
Mercury	97478-11-18 11:16 G	37324489.88	37324489.97	37324490.05	0.1596	0.1123
Mercury	97480-10-23 12:00 G	37325194.89	37325195.00	37325195.11	0.1586	0.0465
Venus	97483-05-10 06:14 G	37326123.61	37326123.76	37326123.92	0.1781	0.0747
Mercury	97488-04-09 23:02 G	37327920.42	37327920.46	37327920.49	0.1599	0.1507
Venus	97489-10-21 07:11 G	37328479.63	37328479.80	37328479.97	0.1762	0.0468
Mercury	97490-03-15 23:45 G	37328625.37	37328625.49	37328625.61	0.1588	0.0080
Mercury	97496-11-04 00:00 G	37331050.40	37331050.50	37331050.60	0.1956	0.1546
Mercury	97499-08-06 11:31 G	37332055.87	37332055.98	37332056.10	0.1590	0.0309
Mercury	97501-07-12 12:28 G	37332760.96	37332761.02	37332761.09	0.1583	0.1279
Mercury	97506-03-27 15:07 G	37334479.97	37334480.13	37334480.30	0.1952	0.0069
Mercury	97508-12-27 23:16 G	37335486.37	37335486.47	37335486.58	0.1593	0.0697
Mercury	97510-12-03 00:14 G	37336191.41	37336191.51	37336191.61	0.1584	0.0893
Mercury	97515-08-17 06:43 G	37337909.67	37337909.78	37337909.89	0.1948	0.1446
Mercury	97518-05-20 11:02 G	37338916.88	37338916.96	37338917.05	0.1596	0.1084

Mercury	97520-04-24 12:00 G	37339621.89	37339622.00	37339622.11	0.1586	0.0504
Mercury	97527-10-10 22:48 G	37342347.41	37342347.45	37342347.50	0.1599	0.1471
Mercury	97529-09-14 23:45 G	37343052.37	37343052.49	37343052.61	0.1588	0.0119
Earth	97532-07-11 18:57 G	37344083.13	37344083.29	37344083.44	0.1939	0.1183
Moon	97532-07-12 03:50 G	37344083.50	37344083.66	37344083.82	0.1940	0.1243
Mercury	97536-05-06 00:28 G	37345477.43	37345477.52	37345477.61	0.1956	0.1625
Mercury	97539-02-05 11:31 G	37346482.86	37346482.98	37346483.09	0.1591	0.0268
Mercury	97541-01-10 12:28 G	37347187.96	37347188.02	37347188.09	0.1583	0.1321
Mercury	97545-09-25 16:19 G	37348907.01	37348907.18	37348907.34	0.1953	0.0163
Mercury	97548-06-27 23:16 G	37349913.37	37349913.47	37349913.58	0.1593	0.0655
Venus	97549-03-07 13:40 G	37350165.90	37350166.07	37350166.24	0.1776	0.0343
Mercury	97550-06-03 00:14 G	37350618.41	37350618.51	37350618.60	0.1584	0.0934
Mercury	97555-02-15 07:40 G	37352336.70	37352336.82	37352336.94	0.1948	0.1340
Venus	97555-08-19 15:21 G	37352521.97	37352522.14	37352522.32	0.1766	0.0115
Mercury	97557-11-18 11:02 G	37353343.88	37353343.96	37353344.05	0.1595	0.1042
Mercury	97559-10-24 12:00 G	37354048.89	37354049.00	37354049.11	0.1586	0.0550
Mercury	97567-04-10 22:48 G	37356774.40	37356774.45	37356774.50	0.1598	0.1432
Mercury	97569-03-15 23:45 G	37357479.37	37357479.49	37357479.60	0.1588	0.0163
Earth	97571-01-08 03:07 G	37358142.46	37358142.63	37358142.81	0.1602	0.0709
Moon	97571-01-08 10:04 G	37358142.76	37358142.92	37358143.09	0.1602	0.0769 *
Mercury	97575-11-05 01:26 G	37359904.49	37359904.56	37359904.64	0.1956	0.1748
Mercury	97578-08-06 11:31 G	37360909.86	37360909.98	37360910.09	0.1590	0.0230
Mercury	97580-07-11 12:28 G	37361614.96	37361615.02	37361615.08	0.1583	0.1363
Mercury	97585-03-26 17:02 G	37363334.05	37363334.21	37363334.38	0.1952	0.0258
Mercury	97587-12-27 23:16 G	37364340.36	37364340.47	37364340.58	0.1593	0.0614
Mercury	97589-12-02 00:14 G	37365045.42	37365045.51	37365045.60	0.1584	0.0976
Mercury	97594-08-16 08:09 G	37366763.72	37366763.84	37366763.97	0.1948	0.1252
Mercury	97597-05-19 11:02 G	37367770.87	37367770.96	37367771.05	0.1596	0.1002
Mercury	97599-04-24 12:00 G	37368475.89	37368476.00	37368476.11	0.1586	0.0590
Mercury	97606-10-09 22:48 G	37371201.40	37371201.45	37371201.51	0.1598	0.1389

Mercury	97608-09-13 23:45 G	37371906.37	37371906.49	37371906.60	0.1588	0.0205
Venus	97615-01-02 21:21 G	37374208.22	37374208.39	37374208.57	0.1772	0.0042
Mercury	97615-05-06 02:38 G	37374331.56	37374331.61	37374331.66	0.1956	0.1859
Mercury	97618-02-04 11:31 G	37375336.86	37375336.98	37375337.09	0.1590	0.0186
Mercury	97620-01-10 12:28 G	37376041.97	37376042.02	37376042.07	0.1583	0.1408
Venus	97621-06-15 23:02 G	37376564.29	37376564.46	37376564.64	0.1771	0.0264
Mercury	97624-09-24 18:00 G	37377761.09	37377761.25	37377761.41	0.1953	0.0367
Mercury	97627-06-27 23:16 G	37378767.36	37378767.47	37378767.58	0.1593	0.0574
Mercury	97629-06-02 00:14 G	37379472.42	37379472.51	37379472.60	0.1584	0.1021
Mercury	97634-02-14 09:21 G	37381190.76	37381190.89	37381191.03	0.1949	0.1133
Mercury	97636-11-17 11:02 G	37382197.87	37382197.96	37382198.05	0.1595	0.0963
Mercury	97638-10-23 12:00 G	37382902.89	37382903.00	37382903.10	0.1586	0.0632
Mercury	97646-04-09 22:48 G	37385628.39	37385628.45	37385628.51	0.1598	0.1352
Mercury	97648-03-14 23:31 G	37386333.37	37386333.48	37386333.60	0.1588	0.0252
Earth	97650-01-10 04:19 G	37386999.53	37386999.68	37386999.84	0.1600	0.0964
Moon	97650-01-10 07:55 G	37386999.72	37386999.83	37386999.95	0.1600	0.1215 *
Mercury	97654-11-04 03:07 G	37388758.62	37388758.63	37388758.64	0.1956	0.1949
Mercury	97657-08-05 11:31 G	37389763.86	37389763.98	37389764.09	0.1590	0.0155
Mercury	97659-07-11 12:28 G	37390468.98	37390469.02	37390469.06	0.1583	0.1451
Mercury	97664-03-25 18:57 G	37392188.12	37392188.29	37392188.45	0.1953	0.0476
Mercury	97666-12-26 23:16 G	37393194.36	37393194.47	37393194.58	0.1593	0.0532
Mercury	97668-12-01 00:14 G	37393899.42	37393899.51	37393899.59	0.1584	0.1064
Mercury	97673-08-15 10:19 G	37395617.79	37395617.93	37395618.08	0.1949	0.1023
Mercury	97676-05-18 11:02 G	37396624.86	37396624.96	37396625.05	0.1595	0.0921
Mercury	97678-04-23 12:00 G	37397329.89	37397330.00	37397330.10	0.1586	0.0677
Venus	97680-10-30 05:31 G	37398250.56	37398250.73	37398250.90	0.1767	0.0407
Mercury	97685-10-08 22:48 G	37400055.38	37400055.45	37400055.51	0.1598	0.1313
Venus	97687-04-13 07:26 G	37400606.65	37400606.81	37400606.97	0.1775	0.0624
Mercury	97687-09-13 23:31 G	37400760.37	37400760.48	37400760.60	0.1588	0.0291
Mercury	97697-02-03 11:16 G	37404190.86	37404190.97	37404191.09	0.1590	0.0113

Mercury	97699-01-09 12:28 G	37404895.98	37404896.02	37404896.05	0.1583	0.1494
Mercury	97703-09-25 19:55 G	37406615.17	37406615.33	37406615.48	0.1953	0.0584
Mercury	97706-06-27 23:16 G	37407621.36	37407621.47	37407621.58	0.1593	0.0493
Mercury	97708-06-02 00:00 G	37408326.42	37408326.50	37408326.59	0.1584	0.1107
Mercury	97713-02-14 10:48 G	37410044.81	37410044.95	37410045.10	0.1949	0.0938
Mercury	97715-11-18 10:48 G	37411051.86	37411051.95	37411052.05	0.1595	0.0884
Mercury	97717-10-23 11:45 G	37411756.89	37411756.99	37411757.10	0.1586	0.0720
Mercury	97725-04-09 22:48 G	37414482.38	37414482.45	37414482.52	0.1598	0.1270
Mercury	97727-03-15 23:31 G	37415187.37	37415187.48	37415187.60	0.1588	0.0331
Mercury	97736-08-05 11:16 G	37418617.86	37418617.97	37418618.09	0.1590	0.0080
Mercury	97738-07-11 12:28 G	37419322.99	37419323.02	37419323.04	0.1582	0.1540
Mercury	97743-03-26 20:38 G	37421042.20	37421042.36	37421042.51	0.1953	0.0684
Mercury	97745-12-26 23:02 G	37422048.35	37422048.46	37422048.58	0.1592	0.0454
Venus	97746-08-28 13:11 G	37422292.89	37422293.05	37422293.20	0.1763	0.0783
Mercury	97747-12-02 00:00 G	37422753.42	37422753.50	37422753.58	0.1584	0.1152
Mercury	97752-08-15 12:14 G	37424471.85	37424472.01	37424472.16	0.1949	0.0812
Venus	97753-02-08 14:52 G	37424648.98	37424649.12	37424649.26	0.1780	0.1011
Mercury	97755-05-19 10:48 G	37425478.86	37425478.95	37425479.05	0.1595	0.0843
Mercury	97757-04-23 11:45 G	37426183.89	37426183.99	37426184.10	0.1586	0.0759
Mercury	97764-10-08 22:33 G	37428909.37	37428909.44	37428909.52	0.1598	0.1234
Mercury	97766-09-13 23:31 G	37429614.37	37429614.48	37429614.60	0.1588	0.0371
Moon	97776-01-08 00:28 G	37433017.47	37433017.52	37433017.57	0.1608	0.1549
Mercury	97776-02-04 11:16 G	37433044.85	37433044.97	37433045.09	0.1590	0.0027
Mercury	97782-09-24 21:35 G	37435469.25	37435469.40	37435469.55	0.1954	0.0801
Venus	97785-02-07 22:48 G	37436336.41	37436336.45	37436336.49	0.1765	0.1713
Mercury	97785-06-26 23:02 G	37436475.35	37436475.46	37436475.58	0.1592	0.0411
Mercury	97787-06-02 00:00 G	37437180.43	37437180.50	37437180.58	0.1584	0.1194
Mercury	97792-02-14 12:57 G	37438898.89	37438899.04	37438899.20	0.1949	0.0707
Mercury	97794-11-17 10:48 G	37439905.85	37439905.95	37439906.05	0.1595	0.0800
Mercury	97796-10-22 11:45 G	37440610.89	37440610.99	37440611.09	0.1586	0.0806

Mercury	97804-04-09 22:33 G	37443336.37	37443336.44	37443336.52	0.1598	0.1194
Mercury	97806-03-15 23:31 G	37444041.37	37444041.48	37444041.59	0.1588	0.0413
Venus	97812-06-25 21:35 G	37446335.26	37446335.40	37446335.53	0.1758	0.1127
Mercury	97813-08-31 10:19 G	37446766.92	37446766.93	37446766.95	0.1601	0.1585
Mercury	97815-08-06 11:16 G	37447471.85	37447471.97	37447472.09	0.1590	0.0023
Venus	97818-12-07 22:33 G	37448691.34	37448691.44	37448691.55	0.1785	0.1396
Mercury	97822-03-26 22:19 G	37449896.28	37449896.43	37449896.58	0.1953	0.0899
Mercury	97824-12-26 23:02 G	37450902.35	37450902.46	37450902.58	0.1592	0.0368
Mercury	97826-12-02 00:00 G	37451607.43	37451607.50	37451607.57	0.1584	0.1236
Mercury	97831-08-16 13:40 G	37453325.91	37453326.07	37453326.23	0.1949	0.0613
Mercury	97834-05-19 10:48 G	37454332.85	37454332.95	37454333.05	0.1595	0.0759
Mercury	97836-04-23 11:45 G	37455037.89	37455037.99	37455038.09	0.1586	0.0846
Mercury	97843-10-09 22:33 G	37457763.36	37457763.44	37457763.52	0.1598	0.1150
Venus	97844-06-25 04:04 G	37458022.59	37458022.67	37458022.76	0.1773	0.1532
Mercury	97845-09-13 23:31 G	37458468.37	37458468.48	37458468.59	0.1588	0.0457
Venus	97850-12-07 06:28 G	37460378.66	37460378.77	37460378.88	0.1770	0.1340
Mercury	97853-03-01 10:19 G	37461193.91	37461193.93	37461193.96	0.1601	0.1545
Moon	97855-01-11 06:28 G	37461874.56	37461874.77	37461874.97	0.1605	0.0131
Earth	97855-01-11 09:07 G	37461874.69	37461874.88	37461875.07	0.1605	0.0096 *
Mercury	97855-02-04 11:16 G	37461898.85	37461898.97	37461899.09	0.1590	0.0068
Mercury	97861-09-24 23:16 G	37464323.33	37464323.47	37464323.61	0.1953	0.1011
Mercury	97864-06-26 23:02 G	37465329.34	37465329.46	37465329.57	0.1592	0.0327
Mercury	97866-06-02 00:00 G	37466034.43	37466034.50	37466034.57	0.1584	0.1281
Mercury	97871-02-14 14:52 G	37467752.95	37467753.12	37467753.28	0.1949	0.0495
Mercury	97873-11-17 10:48 G	37468759.85	37468759.95	37468760.05	0.1595	0.0718
Mercury	97875-10-23 11:45 G	37469464.89	37469464.99	37469465.09	0.1586	0.0889
Venus	97878-04-23 05:31 G	37470377.64	37470377.73	37470377.82	0.1753	0.1479
Mercury	97883-04-09 22:33 G	37472190.36	37472190.44	37472190.52	0.1598	0.1111
Mercury	97885-03-14 23:31 G	37472895.37	37472895.48	37472895.59	0.1588	0.0501
Mercury	97892-08-30 10:19 G	37475620.90	37475620.93	37475620.97	0.1601	0.1504

Mercury	97894-08-05 11:16 G	37476325.85	37476325.97	37476326.08	0.1590	0.0113
Mercury	97901-03-27 00:14 G	37478750.37	37478750.51	37478750.64	0.1954	0.1122
Mercury	97903-12-27 23:02 G	37479756.34	37479756.46	37479756.58	0.1592	0.0282
Mercury	97905-12-02 00:00 G	37480461.44	37480461.50	37480461.56	0.1584	0.1325
Venus	97910-04-23 12:14 G	37482064.88	37482065.01	37482065.14	0.1769	0.1163
Mercury	97910-08-16 15:50 G	37482179.99	37482180.16	37482180.32	0.1949	0.0383
Mercury	97913-05-19 10:48 G	37483186.84	37483186.95	37483187.05	0.1595	0.0677
Mercury	97915-04-24 11:45 G	37483891.90	37483891.99	37483892.08	0.1586	0.0935
Venus	97916-10-04 14:09 G	37484420.95	37484421.09	37484421.24	0.1774	0.0974
Mercury	97920-01-06 06:43 G	37485609.75	37485609.78	37485609.81	0.1945	0.1909
Mercury	97922-10-09 22:33 G	37486617.35	37486617.44	37486617.52	0.1598	0.1071
Mercury	97924-09-13 23:16 G	37487322.36	37487322.47	37487322.59	0.1588	0.0546
Mercury	97932-03-01 10:19 G	37490047.89	37490047.93	37490047.97	0.1601	0.1464
Mercury	97934-02-04 11:16 G	37490752.85	37490752.97	37490753.08	0.1590	0.0158
Mercury	97940-09-25 01:11 G	37493177.42	37493177.55	37493177.67	0.1954	0.1229
Mercury	97943-06-27 23:02 G	37494183.34	37494183.46	37494183.57	0.1592	0.0246
Mercury	97945-06-02 00:00 G	37494888.44	37494888.50	37494888.56	0.1584	0.1368
Mercury	97950-02-14 16:19 G	37496607.01	37496607.18	37496607.35	0.1950	0.0291
Mercury	97952-11-17 10:48 G	37497613.84	37497613.95	37497614.05	0.1595	0.0637
Mercury	97954-10-23 11:45 G	37498318.90	37498318.99	37498319.08	0.1586	0.0978
Mercury	97959-07-07 07:55 G	37500036.77	37500036.83	37500036.89	0.1945	0.1792
Mercury	97962-04-09 22:33 G	37501044.35	37501044.44	37501044.53	0.1597	0.1027
Mercury	97964-03-14 23:16 G	37501749.37	37501749.47	37501749.58	0.1588	0.0589
Mercury	97971-08-31 10:19 G	37504474.88	37504474.93	37504474.98	0.1601	0.1424
Mercury	97973-08-05 11:16 G	37505179.85	37505179.97	37505180.08	0.1590	0.0201
Venus	97976-02-18 20:09 G	37506107.18	37506107.34	37506107.49	0.1764	0.0782
Mercury	97980-03-26 01:55 G	37507604.46	37507604.58	37507604.70	0.1954	0.1333
Venus	97982-08-01 22:04 G	37508463.25	37508463.42	37508463.58	0.1779	0.0598
Mercury	97982-12-26 22:48 G	37508610.34	37508610.45	37508610.57	0.1592	0.0207
Mercury	97984-12-01 00:00 G	37509315.45	37509315.50	37509315.55	0.1584	0.1415

Mercury	97989-08-15 17:31 G	37511034.07	37511034.23	37511034.40	0.1950	0.0166
Mercury	97992-05-18 10:33 G	37512040.84	37512040.94	37512041.05	0.1595	0.0596
Mercury	97994-04-23 11:31 G	37512745.89	37512745.98	37512746.07	0.1585	0.1021
Mercury	97999-01-05 08:24 G	37514463.77	37514463.85	37514463.93	0.1945	0.1704

99TH MILLENNIUM CE

This is a list of transits visible from Mars in the 99th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	98001-10-08 22:33 G		37515471.35	37515471.44	37515471.53	0.1598	0.0989	
Mercury	98003-09-13 23:16 G		37516176.37	37516176.47	37516176.58	0.1587	0.0631	
Mercury	98011-03-01 10:19 G		37518901.87	37518901.93	37518901.98	0.1601	0.1382	
Mercury	98013-02-03 11:02 G		37519606.85	37519606.96	37519607.08	0.1590	0.0240	
Mercury	98019-09-25 02:52 G		37522031.52	37522031.62	37522031.73	0.1954	0.1458	
Mercury	98022-06-26 23:02 G		37523037.34	37523037.46	37523037.57	0.1592	0.0165	
Mercury	98024-06-01 00:00 G		37523742.45	37523742.50	37523742.54	0.1584	0.1459	
Mercury	98029-02-13 18:28 G		37525461.10	37525461.27	37525461.43	0.1950	0.0065	
Mercury	98031-11-17 10:33 G		37526467.83	37526467.94	37526468.05	0.1595	0.0552	
Mercury	98033-10-22 11:45 G		37527172.90	37527172.99	37527173.07	0.1585	0.1069	
Mercury	98038-07-06 09:21 G		37528890.80	37528890.89	37528890.99	0.1945	0.1589	
Mercury	98041-04-08 22:19 G		37529898.34	37529898.43	37529898.53	0.1597	0.0949	
Venus	98041-12-16 04:04 G		37530149.51	37530149.67	37530149.84	0.1760	0.0422	
Mercury	98043-03-14 23:16 G		37530603.36	37530603.47	37530603.58	0.1587	0.0672	
Venus	98048-05-29 05:31 G		37532505.55	37532505.73	37532505.90	0.1783	0.0212	

Mercury	98050-08-30 10:04 G	37533328.86	37533328.92	37533328.99	0.1600	0.1343
Mercury	98052-08-04 11:02 G	37534033.85	37534033.96	37534034.08	0.1589	0.0281
Mercury	98059-03-26 03:35 G	37536458.55	37536458.65	37536458.75	0.1954	0.1551
Earth	98060-01-11 12:14 G	37536749.85	37536750.01	37536750.17	0.1611	0.0827
Moon	98060-01-11 14:38 G	37536749.95	37536750.11	37536750.28	0.1611	0.0614 *
Mercury	98061-12-25 22:48 G	37537464.33	37537464.45	37537464.57	0.1592	0.0116
Mercury	98063-12-01 00:00 G	37538169.46	37538169.50	37538169.53	0.1584	0.1503
Mercury	98068-08-14 18:57 G	37539888.13	37539888.29	37539888.46	0.1950	0.0069
Mercury	98071-05-18 10:33 G	37540894.83	37540894.94	37540895.05	0.1595	0.0510
Mercury	98073-04-22 11:31 G	37541599.90	37541599.98	37541600.07	0.1585	0.1110
Mercury	98078-01-04 10:33 G	37543317.84	37543317.94	37543318.05	0.1946	0.1466
Mercury	98080-10-07 22:19 G	37544325.34	37544325.43	37544325.53	0.1597	0.0904
Mercury	98082-09-12 23:16 G	37545030.37	37545030.47	37545030.58	0.1587	0.0718
Mercury	98090-02-28 10:04 G	37547755.86	37547755.92	37547755.99	0.1600	0.1302
Mercury	98092-02-03 11:02 G	37548460.85	37548460.96	37548461.08	0.1589	0.0326
Mercury	98098-09-24 04:33 G	37550885.61	37550885.69	37550885.78	0.1954	0.1666
Mercury	98101-06-26 22:48 G	37551891.33	37551891.45	37551891.57	0.1592	0.0072
Mercury	98103-06-02 00:00 G	37552596.47	37552596.50	37552596.52	0.1583	0.1550
Venus	98107-10-14 12:43 G	37554191.85	37554192.03	37554192.20	0.1755	0.0076
Mercury	98108-02-14 20:09 G	37554315.18	37554315.34	37554315.51	0.1950	0.0162
Mercury	98110-11-17 10:33 G	37555321.83	37555321.94	37555322.05	0.1594	0.0466
Mercury	98112-10-22 11:31 G	37556026.90	37556026.98	37556027.06	0.1585	0.1153
Venus	98114-03-27 13:26 G	37556547.88	37556548.06	37556548.23	0.1788	0.0172
Mercury	98117-07-06 11:02 G	37557744.85	37557744.96	37557745.08	0.1946	0.1382
Mercury	98120-04-08 22:19 G	37558752.33	37558752.43	37558752.53	0.1597	0.0864
Mercury	98122-03-14 23:16 G	37559457.37	37559457.47	37559457.57	0.1587	0.0761
Mercury	98129-08-30 10:04 G	37562182.85	37562182.92	37562182.99	0.1600	0.1259
Mercury	98131-08-05 11:02 G	37562887.85	37562887.96	37562888.07	0.1589	0.0366
Mercury	98138-03-26 05:31 G	37565312.67	37565312.73	37565312.80	0.1955	0.1784
Moon	98139-01-14 10:33 G	37565606.77	37565606.94	37565607.11	0.1608	0.0631

Earth	98139-01-14 14:52 G	37565606.96	37565607.12	37565607.28	0.1608	0.0895 *
Mercury	98140-12-25 22:48 G	37566318.33	37566318.45	37566318.57	0.1592	0.0026
Mercury	98147-08-15 21:07 G	37568742.22	37568742.38	37568742.55	0.1950	0.0273
Mercury	98150-05-18 10:33 G	37569748.83	37569748.94	37569749.05	0.1594	0.0424
Mercury	98152-04-22 11:31 G	37570453.91	37570453.98	37570454.06	0.1585	0.1201
Mercury	98157-01-04 12:14 G	37572171.88	37572172.01	37572172.14	0.1946	0.1258
Mercury	98159-10-08 22:19 G	37573179.33	37573179.43	37573179.53	0.1597	0.0822
Mercury	98161-09-12 23:16 G	37573884.37	37573884.47	37573884.57	0.1587	0.0805
Mercury	98169-02-28 10:04 G	37576609.85	37576609.92	37576609.99	0.1600	0.1218
Mercury	98171-02-03 11:02 G	37577314.85	37577314.96	37577315.07	0.1589	0.0410
Venus	98173-08-10 20:38 G	37578234.19	37578234.36	37578234.53	0.1751	0.0291
Mercury	98177-09-24 06:28 G	37579739.73	37579739.77	37579739.81	0.1954	0.1887
Moon	98179-07-18 02:09 G	37580401.41	37580401.59	37580401.78	0.1931	0.0214
Earth	98179-07-18 08:52 G	37580401.67	37580401.87	37580402.06	0.1931	0.0536 *
Venus	98180-01-22 20:24 G	37580590.19	37580590.35	37580590.52	0.1793	0.0576
Mercury	98180-06-25 22:48 G	37580745.33	37580745.45	37580745.56	0.1592	0.0036
Mercury	98187-02-13 21:50 G	37583169.24	37583169.41	37583169.57	0.1951	0.0372
Mercury	98189-11-16 10:33 G	37584175.82	37584175.94	37584176.05	0.1594	0.0382
Mercury	98191-10-22 11:31 G	37584880.91	37584880.98	37584881.05	0.1585	0.1244
Mercury	98196-07-05 13:26 G	37586598.92	37586599.06	37586599.19	0.1946	0.1141
Mercury	98199-04-08 22:19 G	37587606.33	37587606.43	37587606.53	0.1597	0.0776
Mercury	98201-03-14 23:16 G	37588311.37	37588311.47	37588311.57	0.1587	0.0851
Mercury	98208-08-30 10:04 G	37591036.84	37591036.92	37591036.99	0.1600	0.1178
Mercury	98210-08-05 11:02 G	37591741.85	37591741.96	37591742.07	0.1589	0.0456
Mercury	98218-01-20 21:50 G	37594467.39	37594467.41	37594467.43	0.1603	0.1576
Mercury	98219-12-26 22:33 G	37595172.33	37595172.44	37595172.56	0.1592	0.0086
Mercury	98226-08-15 23:02 G	37597596.30	37597596.46	37597596.62	0.1951	0.0497
Mercury	98229-05-18 10:33 G	37598602.82	37598602.94	37598603.05	0.1594	0.0341
Mercury	98231-04-23 11:31 G	37599307.91	37599307.98	37599308.04	0.1585	0.1288
Mercury	98236-01-05 13:55 G	37601025.94	37601026.08	37601026.22	0.1946	0.1050

Mercury	98238-10-08 22:19 G	37602033.32	37602033.43	37602033.53	0.1597	0.0737
Venus	98239-06-09 05:31 G	37602276.57	37602276.73	37602276.89	0.1746	0.0617
Mercury	98240-09-12 23:16 G	37602738.37	37602738.47	37602738.56	0.1587	0.0896
Venus	98245-11-20 03:50 G	37604632.52	37604632.66	37604632.81	0.1797	0.0980
Mercury	98248-02-29 10:04 G	37605463.84	37605463.92	37605464.00	0.1600	0.1134
Mercury	98250-02-03 11:02 G	37606168.85	37606168.96	37606169.07	0.1589	0.0500
Mercury	98257-07-21 21:50 G	37608894.38	37608894.41	37608894.44	0.1603	0.1533
Mercury	98259-06-26 22:48 G	37609599.33	37609599.45	37609599.56	0.1591	0.0116
Mercury	98266-02-13 23:45 G	37612023.33	37612023.49	37612023.65	0.1951	0.0603
Mercury	98268-11-16 10:19 G	37613029.82	37613029.93	37613030.05	0.1594	0.0302
Mercury	98270-10-22 11:31 G	37613734.92	37613734.98	37613735.04	0.1585	0.1337
Mercury	98275-07-06 14:52 G	37615452.98	37615453.12	37615453.27	0.1946	0.0931
Mercury	98278-04-08 22:04 G	37616460.32	37616460.42	37616460.53	0.1597	0.0698
Mercury	98280-03-13 23:02 G	37617165.37	37617165.46	37617165.56	0.1587	0.0940
Mercury	98287-08-30 10:04 G	37619890.83	37619890.92	37619891.00	0.1600	0.1094
Mercury	98289-08-04 10:48 G	37620595.84	37620595.95	37620596.07	0.1589	0.0546
Mercury	98297-01-19 21:50 G	37623321.37	37623321.41	37623321.44	0.1603	0.1494
Mercury	98298-12-25 22:33 G	37624026.33	37624026.44	37624026.56	0.1591	0.0153
Venus	98305-04-06 13:55 G	37626318.94	37626319.08	37626319.23	0.1742	0.0952
Mercury	98305-08-16 00:28 G	37626450.37	37626450.52	37626450.68	0.1951	0.0710
Mercury	98308-05-18 10:19 G	37627456.82	37627456.93	37627457.05	0.1594	0.0257
Mercury	98310-04-23 11:31 G	37628161.92	37628161.98	37628162.03	0.1585	0.1381
Venus	98311-09-18 10:48 G	37628674.84	37628674.95	37628675.05	0.1802	0.1406
Mercury	98315-01-05 16:19 G	37629880.02	37629880.18	37629880.33	0.1947	0.0806
Mercury	98317-10-08 22:19 G	37630887.32	37630887.43	37630887.53	0.1597	0.0650
Mercury	98319-09-13 23:16 G	37631592.37	37631592.47	37631592.56	0.1587	0.0987
Mercury	98327-03-01 09:50 G	37634317.83	37634317.91	37634318.00	0.1600	0.1052
Mercury	98329-02-03 10:48 G	37635022.85	37635022.95	37635023.06	0.1589	0.0593
Mercury	98336-07-21 21:35 G	37637748.36	37637748.40	37637748.45	0.1603	0.1453
Venus	98337-04-05 19:40 G	37638006.25	37638006.32	37638006.38	0.1756	0.1623

Mercury	98338-06-26 22:33 G	37638453.32	37638453.44	37638453.56	0.1591	0.0189
Venus	98343-09-17 20:24 G	37640362.26	37640362.35	37640362.45	0.1787	0.1458
Earth	98344-01-15 17:45 G	37640482.05	37640482.24	37640482.43	0.1615	0.0044
Moon	98344-01-15 23:31 G	37640482.29	37640482.48	37640482.67	0.1614	0.0234 *
Mercury	98345-02-14 01:40 G	37640877.42	37640877.57	37640877.72	0.1951	0.0830
Mercury	98347-11-17 10:19 G	37641883.82	37641883.93	37641884.05	0.1594	0.0212
Mercury	98349-10-22 11:16 G	37642588.93	37642588.97	37642589.02	0.1585	0.1426
Mercury	98354-07-06 16:48 G	37644307.04	37644307.20	37644307.35	0.1947	0.0720
Mercury	98357-04-08 22:04 G	37645314.31	37645314.42	37645314.53	0.1597	0.0609
Mercury	98359-03-14 23:02 G	37646019.38	37646019.46	37646019.55	0.1587	0.1031
Mercury	98366-08-30 09:50 G	37648744.82	37648744.91	37648745.00	0.1600	0.1007
Mercury	98368-08-04 10:48 G	37649449.85	37649449.95	37649450.06	0.1589	0.0633
Venus	98371-02-01 23:02 G	37650361.34	37650361.46	37650361.57	0.1737	0.1267
Mercury	98376-01-20 21:35 G	37652175.35	37652175.40	37652175.46	0.1603	0.1409
Mercury	98377-12-25 22:33 G	37652880.33	37652880.44	37652880.56	0.1591	0.0239
Mercury	98384-08-15 02:38 G	37655304.46	37655304.61	37655304.75	0.1951	0.0944
Mercury	98387-05-18 10:19 G	37656310.81	37656310.93	37656311.05	0.1594	0.0165
Mercury	98389-04-22 11:16 G	37657015.93	37657015.97	37657016.02	0.1585	0.1476
Mercury	98394-01-04 17:45 G	37658734.08	37658734.24	37658734.40	0.1947	0.0592
Mercury	98396-10-07 22:04 G	37659741.31	37659741.42	37659741.53	0.1597	0.0566
Mercury	98398-09-12 23:02 G	37660446.38	37660446.46	37660446.55	0.1587	0.1075
Venus	98403-02-01 03:35 G	37662048.54	37662048.65	37662048.77	0.1752	0.1262
Mercury	98406-02-28 09:50 G	37663171.82	37663171.91	37663172.00	0.1600	0.0965
Mercury	98408-02-03 10:48 G	37663876.85	37663876.95	37663877.06	0.1589	0.0677
Venus	98409-07-15 03:50 G	37664404.52	37664404.66	37664404.80	0.1791	0.1062
Mercury	98415-07-21 21:35 G	37666602.34	37666602.40	37666602.46	0.1603	0.1367
Mercury	98417-06-25 22:33 G	37667307.32	37667307.44	37667307.56	0.1591	0.0280
Moon	98423-01-18 01:40 G	37669339.53	37669339.57	37669339.62	0.1611	0.1563
Mercury	98424-02-14 03:21 G	37669731.50	37669731.64	37669731.78	0.1952	0.1048
Mercury	98426-11-16 10:19 G	37670737.81	37670737.93	37670738.05	0.1594	0.0121

Mercury	98428-10-21 11:16 G	37671442.94	37671442.97	37671443.00	0.1585	0.1519
Mercury	98433-07-05 18:57 G	37673161.13	37673161.29	37673161.45	0.1947	0.0471
Mercury	98436-04-07 22:04 G	37674168.31	37674168.42	37674168.53	0.1596	0.0519
Venus	98436-11-29 07:40 G	37674403.76	37674403.82	37674403.89	0.1733	0.1579
Mercury	98438-03-13 23:02 G	37674873.38	37674873.46	37674873.54	0.1587	0.1123
Mercury	98445-08-29 09:50 G	37677598.81	37677598.91	37677599.00	0.1600	0.0923
Mercury	98447-08-04 10:48 G	37678303.85	37678303.95	37678304.06	0.1589	0.0724
Mercury	98455-01-19 21:35 G	37681029.34	37681029.40	37681029.46	0.1603	0.1325
Mercury	98456-12-24 22:33 G	37681734.32	37681734.44	37681734.55	0.1591	0.0325
Earth	98463-07-19 11:02 G	37684131.79	37684131.96	37684132.14	0.1923	0.0850
Moon	98463-07-19 20:24 G	37684132.17	37684132.35	37684132.53	0.1924	0.0790
Mercury	98463-08-15 04:19 G	37684158.55	37684158.68	37684158.82	0.1952	0.1171
Mercury	98466-05-17 10:19 G	37685164.81	37685164.93	37685165.05	0.1594	0.0076
Mercury	98468-04-21 11:16 G	37685869.96	37685869.97	37685869.99	0.1585	0.1563
Venus	98468-11-28 12:28 G	37686090.87	37686091.02	37686091.16	0.1748	0.0920
Mercury	98473-01-03 19:26 G	37687588.15	37687588.31	37687588.48	0.1947	0.0379
Venus	98475-05-12 11:02 G	37688446.80	37688446.96	37688447.12	0.1796	0.0658
Mercury	98475-10-07 22:04 G	37688595.31	37688595.42	37688595.53	0.1597	0.0478
Mercury	98477-09-11 23:02 G	37689300.38	37689300.46	37689300.54	0.1587	0.1168
Mercury	98482-05-26 10:48 G	37691017.93	37691017.95	37691017.98	0.1942	0.1906
Mercury	98485-02-27 09:50 G	37692025.81	37692025.91	37692026.01	0.1599	0.0878
Mercury	98487-02-02 10:48 G	37692730.85	37692730.95	37692731.05	0.1589	0.0768
Mercury	98494-07-20 21:35 G	37695456.33	37695456.40	37695456.47	0.1603	0.1281
Mercury	98496-06-24 22:33 G	37696161.33	37696161.44	37696161.55	0.1591	0.0372
Mercury	98503-02-14 05:16 G	37698585.59	37698585.72	37698585.84	0.1952	0.1281
Mercury	98505-11-16 10:19 G	37699591.81	37699591.93	37699592.04	0.1594	0.0045
Mercury	98512-07-05 20:38 G	37702015.19	37702015.36	37702015.53	0.1947	0.0252
Mercury	98515-04-08 22:04 G	37703022.30	37703022.42	37703022.53	0.1596	0.0437
Mercury	98517-03-13 23:02 G	37703727.38	37703727.46	37703727.53	0.1586	0.1212
Mercury	98521-11-25 12:00 G	37705444.93	37705445.00	37705445.06	0.1942	0.1794

Mercury	98524-08-29 09:50 G	37706452.81	37706452.91	37706453.01	0.1599	0.0837
Mercury	98526-08-04 10:48 G	37707157.85	37707157.95	37707158.05	0.1589	0.0814
Mercury	98534-01-19 21:35 G	37709883.33	37709883.40	37709883.47	0.1603	0.1240
Venus	98534-09-26 21:07 G	37710133.22	37710133.38	37710133.55	0.1743	0.0586
Mercury	98535-12-25 22:33 G	37710588.32	37710588.44	37710588.55	0.1591	0.0418
Venus	98541-03-09 18:28 G	37712489.10	37712489.27	37712489.45	0.1800	0.0266
Mercury	98542-08-15 06:00 G	37713012.64	37713012.75	37713012.87	0.1952	0.1394
Mercury	98545-05-17 10:19 G	37714018.81	37714018.93	37714019.05	0.1594	0.0025
Moon	98549-01-14 14:52 G	37715357.01	37715357.12	37715357.23	0.1622	0.1274
Earth	98549-01-14 20:09 G	37715357.19	37715357.34	37715357.49	0.1621	0.0984 *
Mercury	98552-01-04 21:50 G	37716442.24	37716442.41	37716442.58	0.1947	0.0127
Mercury	98554-10-07 22:04 G	37717449.30	37717449.42	37717449.53	0.1596	0.0389
Mercury	98556-09-11 23:02 G	37718154.39	37718154.46	37718154.53	0.1586	0.1261
Mercury	98561-05-26 12:43 G	37719871.95	37719872.03	37719872.11	0.1942	0.1687
Mercury	98564-02-28 09:35 G	37720879.80	37720879.90	37720880.00	0.1599	0.0796
Mercury	98566-02-02 10:48 G	37721584.85	37721584.95	37721585.05	0.1588	0.0861
Mercury	98573-07-20 21:35 G	37724310.32	37724310.40	37724310.47	0.1602	0.1198
Mercury	98575-06-25 22:19 G	37725015.32	37725015.43	37725015.55	0.1591	0.0462
Mercury	98582-02-13 07:11 G	37727439.69	37727439.80	37727439.90	0.1952	0.1513
Mercury	98582-12-11 09:07 G	37727740.88	37727740.88	37727740.89	0.1606	0.1604
Mercury	98584-11-15 10:19 G	37728445.81	37728445.93	37728446.04	0.1593	0.0076
Mercury	98591-07-05 22:19 G	37730869.26	37730869.43	37730869.59	0.1948	0.0052
Mercury	98594-04-07 21:50 G	37731876.30	37731876.41	37731876.53	0.1596	0.0350
Mercury	98596-03-12 23:02 G	37732581.39	37732581.46	37732581.52	0.1586	0.1306
Venus	98600-07-25 05:31 G	37734175.56	37734175.73	37734175.91	0.1739	0.0245
Mercury	98600-11-25 13:55 G	37734298.98	37734299.08	37734299.18	0.1943	0.1559
Mercury	98603-08-30 09:35 G	37735306.80	37735306.90	37735307.01	0.1599	0.0750
Mercury	98605-08-04 10:48 G	37736011.85	37736011.95	37736012.04	0.1588	0.0907
Venus	98607-01-06 01:11 G	37736531.38	37736531.55	37736531.72	0.1805	0.0166
Mercury	98613-01-19 21:35 G	37738737.32	37738737.40	37738737.48	0.1602	0.1154

Mercury	98614-12-25 22:33 G	37739442.32	37739442.44	37739442.55	0.1591	0.0510
Mercury	98621-08-15 07:55 G	37741866.74	37741866.83	37741866.92	0.1952	0.1626
Mercury	98622-06-12 09:07 G	37742167.86	37742167.88	37742167.91	0.1606	0.1561
Mercury	98624-05-17 10:04 G	37742872.81	37742872.92	37742873.04	0.1593	0.0119
Moon	98628-01-18 17:16 G	37744214.07	37744214.22	37744214.39	0.1618	0.0922
Earth	98628-01-18 23:31 G	37744214.31	37744214.48	37744214.64	0.1618	0.0794 *
Mercury	98631-01-04 23:31 G	37745296.31	37745296.48	37745296.65	0.1948	0.0096
Mercury	98633-10-07 21:50 G	37746303.30	37746303.41	37746303.53	0.1596	0.0303
Mercury	98635-09-12 23:02 G	37747008.40	37747008.46	37747008.52	0.1586	0.1352
Mercury	98640-05-26 14:38 G	37748726.00	37748726.11	37748726.22	0.1942	0.1461
Mercury	98643-02-28 09:35 G	37749733.80	37749733.90	37749734.01	0.1599	0.0706
Mercury	98645-02-02 10:48 G	37750438.85	37750438.95	37750439.04	0.1588	0.0954
Mercury	98652-07-20 21:21 G	37753164.31	37753164.39	37753164.48	0.1602	0.1111
Mercury	98654-06-25 22:19 G	37753869.32	37753869.43	37753869.54	0.1591	0.0553
Mercury	98661-02-13 08:52 G	37756293.79	37756293.87	37756293.94	0.1953	0.1739
Mercury	98661-12-11 09:07 G	37756594.85	37756594.88	37756594.92	0.1606	0.1516
Mercury	98663-11-16 10:04 G	37757299.81	37757299.92	37757300.04	0.1593	0.0162
Venus	98666-05-22 14:52 G	37758217.94	37758218.12	37758218.29	0.1735	0.0071
Mercury	98670-07-06 00:28 G	37759723.36	37759723.52	37759723.69	0.1948	0.0214
Venus	98672-11-02 08:24 G	37760573.69	37760573.85	37760574.01	0.1810	0.0586
Mercury	98673-04-07 21:50 G	37760730.30	37760730.41	37760730.53	0.1596	0.0257
Mercury	98675-03-13 23:02 G	37761435.41	37761435.46	37761435.51	0.1586	0.1401
Mercury	98679-11-25 15:35 G	37763153.03	37763153.15	37763153.27	0.1943	0.1339
Mercury	98682-08-29 09:35 G	37764160.79	37764160.90	37764161.01	0.1599	0.0662
Mercury	98684-08-03 10:33 G	37764865.85	37764865.94	37764866.03	0.1588	0.1000
Mercury	98692-01-19 21:21 G	37767591.31	37767591.39	37767591.48	0.1602	0.1067
Mercury	98693-12-24 22:19 G	37768296.32	37768296.43	37768296.54	0.1591	0.0595
Mercury	98700-08-15 09:50 G	37770720.86	37770720.91	37770720.96	0.1952	0.1859
Mercury	98701-06-12 09:07 G	37771021.84	37771021.88	37771021.92	0.1606	0.1474
Mercury	98703-05-18 10:04 G	37771726.81	37771726.92	37771727.04	0.1593	0.0198

Mercury	98710-01-05 01:11 G	37774150.38	37774150.55	37774150.71	0.1948	0.0313
Mercury	98712-10-07 21:50 G	37775157.29	37775157.41	37775157.53	0.1596	0.0211
Mercury	98714-09-12 23:02 G	37775862.41	37775862.46	37775862.50	0.1586	0.1448
Mercury	98719-05-27 16:33 G	37777580.07	37777580.19	37777580.32	0.1943	0.1222
Mercury	98722-02-28 09:35 G	37778587.79	37778587.90	37778588.01	0.1599	0.0615
Mercury	98724-02-03 10:33 G	37779292.86	37779292.94	37779293.03	0.1588	0.1046
Mercury	98731-07-21 21:21 G	37782018.30	37782018.39	37782018.48	0.1602	0.1022
Venus	98732-03-19 23:31 G	37782260.31	37782260.48	37782260.65	0.1730	0.0394
Mercury	98733-06-25 22:19 G	37782723.33	37782723.43	37782723.54	0.1590	0.0646
Venus	98738-08-31 14:52 G	37784615.98	37784616.12	37784616.26	0.1815	0.1032
Mercury	98740-12-11 09:07 G	37785448.83	37785448.88	37785448.93	0.1605	0.1432
Mercury	98742-11-16 10:04 G	37786153.81	37786153.92	37786154.04	0.1593	0.0240
Mercury	98749-07-06 02:09 G	37788577.43	37788577.59	37788577.76	0.1948	0.0443
Mercury	98752-04-07 21:50 G	37789584.29	37789584.41	37789584.52	0.1596	0.0169
Mercury	98754-03-13 22:48 G	37790289.42	37790289.45	37790289.49	0.1586	0.1493
Mercury	98758-11-25 17:31 G	37792007.09	37792007.23	37792007.37	0.1943	0.1114
Mercury	98761-08-29 09:35 G	37793014.79	37793014.90	37793015.01	0.1599	0.0572
Mercury	98763-08-04 10:33 G	37793719.86	37793719.94	37793720.03	0.1588	0.1091
Mercury	98771-01-19 21:21 G	37796445.30	37796445.39	37796445.48	0.1602	0.0978
Mercury	98772-12-24 22:19 G	37797150.32	37797150.43	37797150.54	0.1591	0.0689
Mercury	98780-06-11 09:07 G	37799875.82	37799875.88	37799875.94	0.1605	0.1385
Mercury	98782-05-17 10:04 G	37800580.81	37800580.92	37800581.04	0.1593	0.0286
Mercury	98789-01-04 03:21 G	37803004.48	37803004.64	37803004.80	0.1948	0.0563
Mercury	98791-10-07 21:50 G	37804011.29	37804011.41	37804011.53	0.1596	0.0120
Mercury	98793-09-11 23:02 G	37804716.43	37804716.46	37804716.48	0.1586	0.1544
Venus	98798-01-15 08:52 G	37806302.71	37806302.87	37806303.03	0.1726	0.0691
Mercury	98798-05-26 18:28 G	37806434.12	37806434.27	37806434.41	0.1943	0.1003
Mercury	98801-02-27 09:35 G	37807441.79	37807441.90	37807442.01	0.1599	0.0530
Mercury	98803-02-02 10:33 G	37808146.86	37808146.94	37808147.02	0.1588	0.1139
Venus	98804-06-27 21:21 G	37808658.29	37808658.39	37808658.49	0.1820	0.1479

Mercury	98810-07-20 21:21 G	37810872.30	37810872.39	37810872.48	0.1602	0.0935
Mercury	98812-06-24 22:19 G	37811577.32	37811577.43	37811577.53	0.1590	0.0734
Mercury	98819-12-11 09:07 G	37814302.81	37814302.88	37814302.94	0.1605	0.1346
Mercury	98821-11-15 10:04 G	37815007.80	37815007.92	37815008.03	0.1593	0.0331
Mercury	98828-07-05 03:50 G	37817431.50	37817431.66	37817431.82	0.1949	0.0655
Mercury	98831-04-07 21:50 G	37818438.29	37818438.41	37818438.52	0.1596	0.0095
Earth	98833-01-18 00:28 G	37819089.33	37819089.52	37819089.71	0.1625	0.0199
Moon	98833-01-18 05:45 G	37819089.56	37819089.74	37819089.92	0.1625	0.0334 *
Venus	98836-06-27 08:52 G	37820345.77	37820345.87	37820345.96	0.1804	0.1501
Mercury	98837-11-24 19:40 G	37820861.17	37820861.32	37820861.47	0.1944	0.0869
Mercury	98840-08-28 09:35 G	37821868.79	37821868.90	37821869.01	0.1599	0.0480
Mercury	98842-08-03 10:33 G	37822573.86	37822573.94	37822574.02	0.1588	0.1186
Mercury	98850-01-18 21:21 G	37825299.29	37825299.39	37825299.48	0.1602	0.0891
Mercury	98851-12-24 22:19 G	37826004.33	37826004.43	37826004.53	0.1590	0.0784
Mercury	98859-06-11 08:52 G	37828729.81	37828729.87	37828729.94	0.1605	0.1302
Mercury	98861-05-16 10:04 G	37829434.80	37829434.92	37829435.03	0.1593	0.0378
Venus	98863-11-12 18:14 G	37830345.12	37830345.26	37830345.40	0.1722	0.0987
Mercury	98868-01-04 05:02 G	37831858.56	37831858.71	37831858.87	0.1949	0.0794
Mercury	98870-10-06 21:50 G	37832865.29	37832865.41	37832865.52	0.1596	0.0072
Mercury	98877-05-25 20:09 G	37835288.19	37835288.34	37835288.50	0.1943	0.0775
Mercury	98880-02-27 09:35 G	37836295.78	37836295.90	37836296.01	0.1599	0.0442
Mercury	98882-02-01 10:33 G	37837000.87	37837000.94	37837001.01	0.1588	0.1233
Mercury	98889-07-19 21:21 G	37839726.29	37839726.39	37839726.48	0.1602	0.0846
Mercury	98891-06-24 22:19 G	37840431.33	37840431.43	37840431.53	0.1590	0.0829
Venus	98895-11-11 21:50 G	37842032.32	37842032.41	37842032.50	0.1736	0.1454
Mercury	98898-12-10 08:52 G	37843156.80	37843156.87	37843156.94	0.1605	0.1255
Mercury	98900-11-15 10:04 G	37843861.80	37843861.92	37843862.03	0.1593	0.0426
Venus	98902-04-25 15:50 G	37844388.02	37844388.16	37844388.29	0.1809	0.1080
Mercury	98907-07-06 06:00 G	37846285.60	37846285.75	37846285.90	0.1949	0.0909
Mercury	98910-04-07 21:35 G	37847292.29	37847292.40	37847292.52	0.1595	0.0060

Earth	98912-01-22 04:33 G	37847946.67	37847946.69	37847946.72	0.1622	0.1600
Mercury	98916-11-24 21:21 G	37849715.23	37849715.39	37849715.55	0.1944	0.0649
Mercury	98919-08-29 09:21 G	37850722.78	37850722.89	37850723.01	0.1598	0.0396
Mercury	98921-08-03 10:33 G	37851427.87	37851427.94	37851428.01	0.1588	0.1281
Mercury	98929-01-18 21:07 G	37854153.28	37854153.38	37854153.48	0.1602	0.0803
Venus	98929-09-10 03:50 G	37854387.55	37854387.66	37854387.78	0.1718	0.1274
Mercury	98930-12-24 22:04 G	37854858.33	37854858.42	37854858.52	0.1590	0.0876
Mercury	98938-06-11 08:52 G	37857583.80	37857583.87	37857583.95	0.1605	0.1212
Mercury	98940-05-16 10:04 G	37858288.80	37858288.92	37858289.03	0.1593	0.0473
Mercury	98947-01-04 06:43 G	37860712.64	37860712.78	37860712.92	0.1949	0.1011
Mercury	98949-10-06 21:35 G	37861719.29	37861719.40	37861719.52	0.1596	0.0070
Mercury	98956-05-25 22:19 G	37864142.27	37864142.43	37864142.59	0.1944	0.0526
Mercury	98959-02-27 09:21 G	37865149.78	37865149.89	37865150.01	0.1598	0.0351
Mercury	98961-02-01 10:33 G	37865854.87	37865854.94	37865855.00	0.1588	0.1329
Venus	98961-09-09 06:43 G	37866074.65	37866074.78	37866074.91	0.1732	0.1128
Venus	98968-02-20 22:47 G	37868430.29	37868430.45	37868430.61	0.1813	0.0659
Mercury	98968-07-19 21:07 G	37868580.28	37868580.38	37868580.48	0.1601	0.0757
Mercury	98970-06-24 22:19 G	37869285.33	37869285.43	37869285.52	0.1590	0.0926
Mercury	98977-12-10 08:52 G	37872010.79	37872010.87	37872010.95	0.1605	0.1169
Mercury	98979-11-15 09:50 G	37872715.80	37872715.91	37872716.02	0.1593	0.0517
Mercury	98986-07-05 07:40 G	37875139.69	37875139.82	37875139.96	0.1949	0.1141
Mercury	98987-05-02 20:38 G	37875441.34	37875441.36	37875441.38	0.1609	0.1582
Mercury	98989-04-06 21:35 G	37876146.28	37876146.40	37876146.52	0.1595	0.0108
Venus	98995-07-08 13:11 G	37878429.98	37878430.05	37878430.12	0.1714	0.1564
Mercury	98995-11-24 23:02 G	37878569.30	37878569.46	37878569.62	0.1944	0.0422
Mercury	98998-08-28 09:21 G	37879576.78	37879576.89	37879577.01	0.1598	0.0302
Mercury	99000-08-03 10:33 G	37880281.88	37880281.94	37880281.99	0.1588	0.1377

100TH MILLENNIUM CE

This is a list of transits visible from Mars in the 100th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	99008-01-19 21:07	G	37883007.28	37883007.38	37883007.49	0.1601	0.0711	
Mercury	99009-12-24 22:04	G	37883712.33	37883712.42	37883712.52	0.1590	0.0971	
Mercury	99017-06-11 08:52	G	37886437.79	37886437.87	37886437.95	0.1605	0.1121	
Mercury	99019-05-17 09:50	G	37887142.80	37887142.91	37887143.02	0.1593	0.0567	
Mercury	99026-01-04 08:52	G	37889566.74	37889566.87	37889566.99	0.1949	0.1263	
Mercury	99026-11-01 20:38	G	37889868.33	37889868.36	37889868.39	0.1608	0.1539	
Venus	99027-07-08 15:35	G	37890117.00	37890117.15	37890117.30	0.1728	0.0804	
Mercury	99028-10-06 21:35	G	37890573.28	37890573.40	37890573.52	0.1595	0.0155	
Venus	99033-12-19 05:02	G	37892472.53	37892472.71	37892472.88	0.1818	0.0208	
Mercury	99035-05-26 23:59	G	37892996.33	37892996.50	37892996.67	0.1944	0.0303	
Moon	99038-01-18 18:28	G	37893964.12	37893964.27	37893964.41	0.1633	0.1090	
Earth	99038-01-19 00:57	G	37893964.41	37893964.54	37893964.66	0.1633	0.1231	*
Mercury	99038-02-27 09:21	G	37894003.77	37894003.89	37894004.01	0.1598	0.0257	
Mercury	99040-02-02 10:19	G	37894708.88	37894708.93	37894708.98	0.1588	0.1424	
Mercury	99044-10-15 15:35	G	37896426.10	37896426.15	37896426.19	0.1939	0.1849	
Mercury	99047-07-20 21:07	G	37897434.27	37897434.38	37897434.48	0.1601	0.0667	
Mercury	99049-06-24 22:04	G	37898139.33	37898139.42	37898139.51	0.1590	0.1017	
Mercury	99056-12-10 08:52	G	37900864.78	37900864.87	37900864.95	0.1605	0.1080	
Mercury	99058-11-15 09:50	G	37901569.80	37901569.91	37901570.02	0.1592	0.0610	
Mercury	99065-07-05 09:21	G	37903993.77	37903993.89	37903994.01	0.1950	0.1360	
Mercury	99066-05-02 20:38	G	37904295.32	37904295.36	37904295.40	0.1608	0.1492	
Mercury	99068-04-06 21:35	G	37905000.28	37905000.40	37905000.52	0.1595	0.0201	

Mercury	99074-11-25 01:11 G	37907423.38	37907423.55	37907423.72	0.1945	0.0169
Mercury	99077-08-28 09:21 G	37908430.77	37908430.89	37908431.01	0.1598	0.0208
Mercury	99079-08-03 10:19 G	37909135.89	37909135.93	37909135.97	0.1588	0.1473
Mercury	99084-04-15 16:19 G	37910853.11	37910853.18	37910853.25	0.1939	0.1744
Mercury	99087-01-18 21:07 G	37911861.27	37911861.38	37911861.48	0.1601	0.0623
Mercury	99088-12-23 22:04 G	37912566.34	37912566.42	37912566.51	0.1590	0.1067
Venus	99093-05-05 00:57 G	37914159.38	37914159.54	37914159.71	0.1723	0.0507
Mercury	99096-06-10 08:52 G	37915291.78	37915291.87	37915291.95	0.1605	0.1036
Mercury	99098-05-16 09:50 G	37915996.80	37915996.91	37915997.02	0.1592	0.0656
Venus	99099-10-16 11:45 G	37916514.82	37916514.99	37916515.16	0.1823	0.0232
Mercury	99105-01-04 10:33 G	37918420.84	37918420.94	37918421.05	0.1950	0.1499
Mercury	99105-11-01 20:38 G	37918722.31	37918722.36	37918722.40	0.1608	0.1451
Mercury	99107-10-07 21:35 G	37919427.28	37919427.40	37919427.51	0.1595	0.0249
Moon	99110-07-27 00:43 G	37920450.37	37920450.53	37920450.69	0.1913	0.1149
Earth	99110-07-27 09:50 G	37920450.77	37920450.91	37920451.06	0.1914	0.1303
Mercury	99114-05-27 01:40 G	37921850.40	37921850.57	37921850.74	0.1944	0.0080
Moon	99117-01-22 04:47 G	37922821.50	37922821.70	37922821.90	0.1629	0.0389
Earth	99117-01-22 04:33 G	37922821.52	37922821.69	37922821.87	0.1629	0.0588 *
Mercury	99117-02-27 09:21 G	37922857.77	37922857.89	37922858.00	0.1598	0.0167
Mercury	99119-02-02 10:19 G	37923562.90	37923562.93	37923562.96	0.1587	0.1520
Mercury	99123-10-16 17:16 G	37925280.13	37925280.22	37925280.31	0.1939	0.1626
Mercury	99126-07-20 21:07 G	37926288.27	37926288.38	37926288.49	0.1601	0.0577
Mercury	99128-06-24 22:04 G	37926993.34	37926993.42	37926993.50	0.1590	0.1112
Mercury	99135-12-11 08:52 G	37929718.77	37929718.87	37929718.96	0.1604	0.0990
Mercury	99137-11-15 09:50 G	37930423.81	37930423.91	37930424.01	0.1592	0.0705
Mercury	99144-07-05 11:31 G	37932847.89	37932847.98	37932848.07	0.1950	0.1612
Mercury	99145-05-02 20:23 G	37933149.30	37933149.35	37933149.41	0.1608	0.1407
Mercury	99147-04-07 21:35 G	37933854.28	37933854.40	37933854.51	0.1595	0.0298
Mercury	99153-11-25 02:52 G	37936277.45	37936277.62	37936277.79	0.1945	0.0056
Mercury	99156-08-28 09:21 G	37937284.77	37937284.89	37937285.00	0.1598	0.0132

Mercury	99158-08-03 10:19 G	37937989.92	37937989.93	37937989.94	0.1587	0.1568
Venus	99159-03-03 10:04 G	37938201.74	37938201.92	37938202.09	0.1719	0.0189
Mercury	99163-04-16 18:14 G	37939707.16	37939707.26	37939707.36	0.1939	0.1507
Venus	99165-08-13 17:45 G	37940557.08	37940557.24	37940557.40	0.1828	0.0705
Mercury	99166-01-18 20:52 G	37940715.26	37940715.37	37940715.48	0.1601	0.0533
Mercury	99167-12-24 22:04 G	37941420.34	37941420.42	37941420.50	0.1590	0.1159
Mercury	99175-06-11 08:38 G	37944145.77	37944145.86	37944145.96	0.1604	0.0945
Mercury	99177-05-16 09:50 G	37944850.80	37944850.91	37944851.01	0.1592	0.0752
Mercury	99184-01-04 11:59 G	37947274.93	37947275.00	37947275.08	0.1950	0.1720
Mercury	99184-10-31 20:23 G	37947576.29	37947576.35	37947576.41	0.1608	0.1360
Mercury	99186-10-06 21:35 G	37948281.28	37948281.40	37948281.51	0.1595	0.0346
Mercury	99193-05-26 03:50 G	37950704.50	37950704.66	37950704.83	0.1945	0.0184
Mercury	99196-02-27 09:21 G	37951711.77	37951711.89	37951712.00	0.1598	0.0083
Mercury	99202-10-15 19:11 G	37954134.18	37954134.30	37954134.41	0.1939	0.1391
Mercury	99205-07-19 20:52 G	37955142.26	37955142.37	37955142.48	0.1601	0.0486
Mercury	99207-06-24 22:04 G	37955847.35	37955847.42	37955847.49	0.1589	0.1210
Mercury	99214-12-10 08:38 G	37958572.77	37958572.86	37958572.96	0.1604	0.0901
Mercury	99216-11-14 09:35 G	37959277.80	37959277.90	37959278.01	0.1592	0.0800
Mercury	99223-07-05 13:11 G	37961702.00	37961702.05	37961702.10	0.1950	0.1849
Mercury	99224-05-01 20:23 G	37962003.29	37962003.35	37962003.42	0.1608	0.1317
Venus	99224-12-28 19:40 G	37962244.15	37962244.32	37962244.49	0.1715	0.0097
Mercury	99226-04-06 21:21 G	37962708.28	37962708.39	37962708.51	0.1595	0.0389
Venus	99231-06-10 23:59 G	37964599.36	37964599.50	37964599.63	0.1833	0.1177
Mercury	99232-11-24 04:33 G	37965131.52	37965131.69	37965131.86	0.1945	0.0282
Mercury	99235-08-28 09:07 G	37966138.77	37966138.88	37966139.00	0.1598	0.0056
Mercury	99242-04-15 19:55 G	37968561.21	37968561.33	37968561.46	0.1940	0.1280
Mercury	99245-01-17 20:52 G	37969569.26	37969569.37	37969569.48	0.1601	0.0438
Mercury	99246-12-23 22:04 G	37970274.35	37970274.42	37970274.49	0.1590	0.1256
Mercury	99254-06-10 08:38 G	37972999.76	37972999.86	37972999.96	0.1604	0.0852
Mercury	99256-05-15 09:35 G	37973704.81	37973704.90	37973705.00	0.1592	0.0850

Mercury	99263-10-31 20:23 G	37976430.28	37976430.35	37976430.42	0.1608	0.1273
Mercury	99265-10-05 21:21 G	37977135.28	37977135.39	37977135.51	0.1595	0.0437
Mercury	99272-05-25 05:31 G	37979558.57	37979558.73	37979558.89	0.1945	0.0405
Mercury	99275-02-26 09:07 G	37980565.76	37980565.88	37980566.00	0.1598	0.0025
Mercury	99281-10-14 21:07 G	37982988.25	37982988.38	37982988.51	0.1940	0.1153
Mercury	99284-07-18 20:52 G	37983996.26	37983996.37	37983996.48	0.1601	0.0393
Mercury	99286-06-23 22:04 G	37984701.35	37984701.42	37984701.48	0.1589	0.1304
Venus	99290-10-26 05:16 G	37986286.55	37986286.72	37986286.89	0.1711	0.0385
Mercury	99293-12-09 08:38 G	37987426.76	37987426.86	37987426.96	0.1604	0.0810
Mercury	99295-11-14 09:35 G	37988131.81	37988131.90	37988132.00	0.1592	0.0895
Venus	99297-04-07 05:45 G	37988641.67	37988641.74	37988641.81	0.1838	0.1674
Mercury	99303-05-02 20:23 G	37990857.28	37990857.35	37990857.42	0.1608	0.1225
Mercury	99305-04-06 21:21 G	37991562.28	37991562.39	37991562.50	0.1595	0.0482
Mercury	99311-11-25 06:43 G	37993985.62	37993985.78	37993985.94	0.1946	0.0541
Mercury	99314-08-28 09:07 G	37994992.77	37994992.88	37994993.00	0.1597	0.0077
Mercury	99321-04-15 21:50 G	37997415.27	37997415.41	37997415.55	0.1940	0.1045
Moon	99322-01-22 02:52 G	37997696.45	37997696.62	37997696.80	0.1638	0.0282
Earth	99322-01-22 04:04 G	37997696.48	37997696.67	37997696.85	0.1638	0.0469 *
Mercury	99324-01-18 20:52 G	37998423.25	37998423.37	37998423.48	0.1601	0.0351
Mercury	99325-12-23 22:04 G	37999128.36	37999128.42	37999128.48	0.1589	0.1355
Venus	99329-04-07 18:57 G	38000329.19	38000329.29	38000329.39	0.1822	0.1447
Mercury	99333-06-10 08:38 G	38001853.76	38001853.86	38001853.96	0.1604	0.0764
Mercury	99335-05-16 09:35 G	38002558.81	38002558.90	38002558.99	0.1592	0.0940
Mercury	99342-10-31 20:23 G	38005284.27	38005284.35	38005284.42	0.1608	0.1184
Mercury	99344-10-05 21:21 G	38005989.28	38005989.39	38005989.50	0.1595	0.0529
Mercury	99351-05-26 07:11 G	38008412.64	38008412.80	38008412.96	0.1946	0.0630
Mercury	99352-03-23 07:55 G	38008714.83	38008714.83	38008714.84	0.1611	0.1603
Mercury	99354-02-26 09:07 G	38009419.76	38009419.88	38009420.00	0.1598	0.0117
Venus	99356-08-23 15:07 G	38010328.97	38010329.13	38010329.29	0.1707	0.0663
Mercury	99360-10-14 22:47 G	38011842.31	38011842.45	38011842.60	0.1941	0.0921

Mercury	99363-07-19 20:52 G	38012850.25	38012850.37	38012850.48	0.1601	0.0300
Mercury	99365-06-23 21:50 G	38013555.36	38013555.41	38013555.47	0.1589	0.1402
Mercury	99372-12-09 08:38 G	38016280.75	38016280.86	38016280.96	0.1604	0.0718
Mercury	99374-11-14 09:35 G	38016985.81	38016985.90	38016985.99	0.1592	0.0992
Mercury	99382-05-01 20:09 G	38019711.26	38019711.34	38019711.42	0.1608	0.1139
Mercury	99384-04-05 21:21 G	38020416.28	38020416.39	38020416.50	0.1594	0.0577
Venus	99388-08-22 16:47 G	38022016.17	38022016.20	38022016.24	0.1720	0.1687
Mercury	99390-11-24 08:23 G	38022839.69	38022839.85	38022840.00	0.1946	0.0768
Mercury	99391-09-22 07:55 G	38023141.80	38023141.83	38023141.86	0.1611	0.1558
Mercury	99393-08-27 09:07 G	38023846.76	38023846.88	38023846.99	0.1597	0.0167
Earth	99394-07-27 16:19 G	38024180.98	38024181.18	38024181.38	0.1905	0.0199
Moon	99394-07-27 22:19 G	38024181.25	38024181.43	38024181.61	0.1905	0.0371 *
Venus	99395-02-03 01:26 G	38024371.42	38024371.56	38024371.71	0.1826	0.1002
Mercury	99400-04-15 23:45 G	38026269.34	38026269.49	38026269.64	0.1940	0.0805
Moon	99401-01-25 01:26 G	38026553.42	38026553.56	38026553.70	0.1634	0.1059
Earth	99401-01-25 08:09 G	38026553.73	38026553.84	38026553.94	0.1634	0.1358
Mercury	99403-01-18 20:38 G	38027277.25	38027277.36	38027277.48	0.1601	0.0260
Mercury	99404-12-23 21:50 G	38027982.37	38027982.41	38027982.46	0.1589	0.1449
Mercury	99412-06-10 08:23 G	38030707.75	38030707.85	38030707.96	0.1604	0.0673
Mercury	99414-05-16 09:35 G	38031412.81	38031412.90	38031412.99	0.1592	0.1038
Mercury	99421-10-31 20:09 G	38034138.26	38034138.34	38034138.43	0.1607	0.1090
Venus	99422-06-22 00:57 G	38034371.39	38034371.54	38034371.68	0.1703	0.0941
Mercury	99423-10-06 21:21 G	38034843.28	38034843.39	38034843.49	0.1595	0.0626
Mercury	99430-05-26 09:21 G	38037266.74	38037266.89	38037267.04	0.1946	0.0894
Mercury	99431-03-24 07:55 G	38037568.79	38037568.83	38037568.86	0.1611	0.1514
Mercury	99433-02-26 09:07 G	38038273.76	38038273.88	38038273.99	0.1597	0.0214
Mercury	99439-10-16 00:43 G	38040696.37	38040696.53	38040696.69	0.1940	0.0686
Mercury	99442-07-19 20:38 G	38041704.25	38041704.36	38041704.48	0.1600	0.0208
Mercury	99444-06-23 21:50 G	38042409.38	38042409.41	38042409.45	0.1589	0.1500
Mercury	99451-12-10 08:23 G	38045134.75	38045134.85	38045134.96	0.1604	0.0627

Mercury	99453-11-14 09:35 G	38045839.81	38045839.90	38045839.98	0.1592	0.1087
Venus	99454-06-21 02:09 G	38046058.49	38046058.59	38046058.69	0.1716	0.1375
Venus	99460-12-01 07:11 G	38048413.64	38048413.80	38048413.97	0.1831	0.0520
Mercury	99461-05-01 20:09 G	38048565.25	38048565.34	38048565.43	0.1607	0.1046
Mercury	99463-04-06 21:21 G	38049270.28	38049270.39	38049270.49	0.1594	0.0674
Mercury	99469-11-24 10:04 G	38051693.77	38051693.92	38051694.06	0.1946	0.0995
Mercury	99470-09-22 07:55 G	38051995.78	38051995.83	38051995.87	0.1611	0.1468
Mercury	99472-08-27 08:52 G	38052700.76	38052700.87	38052700.99	0.1597	0.0261
Mercury	99479-04-16 01:26 G	38055123.40	38055123.56	38055123.73	0.1941	0.0572
Mercury	99482-01-17 20:38 G	38056131.25	38056131.36	38056131.48	0.1600	0.0162
Mercury	99483-12-23 21:50 G	38056836.39	38056836.41	38056836.43	0.1589	0.1548
Venus	99488-04-18 10:47 G	38058413.83	38058413.95	38058414.07	0.1700	0.1213
Mercury	99491-06-10 08:23 G	38059561.74	38059561.85	38059561.96	0.1604	0.0577
Mercury	99493-05-15 09:35 G	38060266.82	38060266.90	38060266.98	0.1592	0.1137
Mercury	99500-10-31 20:09 G	38062992.25	38062992.34	38062992.43	0.1607	0.1001
Mercury	99502-10-06 21:07 G	38063697.28	38063697.38	38063697.49	0.1594	0.0723
Mercury	99509-05-26 11:02 G	38066120.82	38066120.96	38066121.09	0.1946	0.1122
Mercury	99510-03-24 07:40 G	38066422.77	38066422.82	38066422.88	0.1611	0.1425
Mercury	99512-02-27 08:52 G	38067127.76	38067127.87	38067127.99	0.1597	0.0304
Mercury	99518-10-16 02:38 G	38069550.45	38069550.61	38069550.77	0.1941	0.0445
Venus	99520-04-18 11:45 G	38070100.86	38070100.99	38070101.13	0.1712	0.1085
Mercury	99521-07-19 20:38 G	38070558.24	38070558.36	38070558.48	0.1600	0.0113
Venus	99526-09-29 13:40 G	38072455.90	38072456.07	38072456.24	0.1836	0.0058
Earth	99527-01-23 01:40 G	38072571.53	38072571.57	38072571.61	0.1646	0.1598
Mercury	99530-12-10 08:23 G	38073988.74	38073988.85	38073988.96	0.1604	0.0532
Mercury	99532-11-14 09:21 G	38074693.82	38074693.89	38074693.97	0.1592	0.1185
Mercury	99540-05-01 20:09 G	38077419.25	38077419.34	38077419.43	0.1607	0.0952
Mercury	99542-04-06 21:07 G	38078124.28	38078124.38	38078124.49	0.1594	0.0771
Mercury	99548-11-24 12:14 G	38080547.88	38080548.01	38080548.13	0.1947	0.1259
Mercury	99549-09-22 07:40 G	38080849.77	38080849.82	38080849.88	0.1611	0.1378

Mercury	99551-08-28 08:52 G	38081554.76	38081554.87	38081554.99	0.1597	0.0355
Venus	99554-02-14 20:38 G	38082456.28	38082456.36	38082456.44	0.1696	0.1488
Mercury	99558-04-16 03:21 G	38083977.47	38083977.64	38083977.80	0.1941	0.0335
Mercury	99561-01-17 20:38 G	38084985.24	38084985.36	38084985.47	0.1600	0.0078
Mercury	99567-09-05 18:43 G	38087407.26	38087407.28	38087407.31	0.1935	0.1898
Mercury	99570-06-10 08:23 G	38088415.74	38088415.85	38088415.96	0.1603	0.0487
Mercury	99572-05-15 09:21 G	38089120.82	38089120.89	38089120.96	0.1591	0.1231
Mercury	99579-10-31 19:55 G	38091846.24	38091846.33	38091846.43	0.1607	0.0910
Mercury	99581-10-05 21:07 G	38092551.28	38092551.38	38092551.48	0.1594	0.0818
Venus	99586-02-13 21:07 G	38094143.22	38094143.38	38094143.53	0.1708	0.0780
Mercury	99588-05-25 12:28 G	38094974.91	38094975.02	38094975.14	0.1947	0.1350
Mercury	99589-03-23 07:40 G	38095276.76	38095276.82	38095276.89	0.1611	0.1332
Mercury	99591-02-26 08:52 G	38095981.76	38095981.87	38095981.98	0.1597	0.0401
Venus	99592-07-26 19:11 G	38096498.13	38096498.30	38096498.46	0.1841	0.0444
Mercury	99597-10-15 04:19 G	38098404.52	38098404.68	38098404.85	0.1942	0.0209
Mercury	99600-07-18 20:38 G	38099412.24	38099412.36	38099412.47	0.1600	0.0033
Earth	99606-01-25 06:28 G	38101428.58	38101428.77	38101428.95	0.1642	0.0277
Moon	99606-01-25 12:43 G	38101428.85	38101429.03	38101429.21	0.1642	0.0564 *
Mercury	99607-03-06 19:40 G	38101834.26	38101834.32	38101834.39	0.1935	0.1781
Mercury	99609-12-09 08:23 G	38102842.73	38102842.85	38102842.96	0.1603	0.0440
Mercury	99611-11-14 09:21 G	38103547.83	38103547.89	38103547.96	0.1591	0.1284
Mercury	99619-05-01 19:55 G	38106273.23	38106273.33	38106273.43	0.1607	0.0863
Mercury	99621-04-05 21:07 G	38106978.28	38106978.38	38106978.48	0.1594	0.0866
Mercury	99627-11-24 13:40 G	38109401.97	38109402.07	38109402.18	0.1947	0.1492
Mercury	99628-09-21 07:40 G	38109703.75	38109703.82	38109703.89	0.1611	0.1286
Mercury	99630-08-27 08:52 G	38110408.75	38110408.87	38110408.98	0.1597	0.0449
Mercury	99637-04-15 05:16 G	38112831.55	38112831.72	38112831.89	0.1941	0.0093
Mercury	99640-01-17 20:23 G	38113839.24	38113839.35	38113839.47	0.1600	0.0064
Mercury	99646-09-04 20:23 G	38116261.27	38116261.35	38116261.43	0.1936	0.1680
Mercury	99649-06-09 08:09 G	38117269.73	38117269.84	38117269.96	0.1603	0.0396

Mercury	99651-05-15 09:21 G	38117974.83	38117974.89	38117974.95	0.1591	0.1331
Venus	99651-12-12 06:57 G	38118185.63	38118185.79	38118185.96	0.1704	0.0509
Venus	99658-05-24 00:57 G	38120540.39	38120540.54	38120540.69	0.1846	0.0938
Mercury	99658-10-30 19:55 G	38120700.23	38120700.33	38120700.43	0.1607	0.0813
Mercury	99660-10-04 21:07 G	38121405.28	38121405.38	38121405.48	0.1594	0.0916
Mercury	99667-05-25 14:52 G	38123829.03	38123829.12	38123829.21	0.1947	0.1617
Mercury	99668-03-22 07:40 G	38124130.74	38124130.82	38124130.89	0.1611	0.1241
Mercury	99670-02-25 08:52 G	38124835.76	38124835.87	38124835.98	0.1597	0.0501
Mercury	99676-10-14 06:14 G	38127258.59	38127258.76	38127258.92	0.1942	0.0059
Moon	99678-07-28 23:59 G	38127911.31	38127911.50	38127911.68	0.1895	0.1037
Earth	99678-07-29 00:14 G	38127911.33	38127911.51	38127911.69	0.1895	0.0783 *
Mercury	99679-07-18 20:23 G	38128266.24	38128266.35	38128266.47	0.1600	0.0083
Mercury	99686-03-05 21:35 G	38130688.30	38130688.40	38130688.50	0.1936	0.1546
Mercury	99688-12-08 08:09 G	38131696.73	38131696.84	38131696.96	0.1603	0.0346
Mercury	99690-11-13 09:21 G	38132401.83	38132401.89	38132401.94	0.1591	0.1379
Mercury	99698-04-30 19:55 G	38135127.23	38135127.33	38135127.43	0.1607	0.0769
Mercury	99700-04-05 21:07 G	38135832.28	38135832.38	38135832.47	0.1594	0.0964
Mercury	99706-11-24 15:21 G	38138256.06	38138256.14	38138256.22	0.1947	0.1717
Mercury	99707-09-22 07:40 G	38138557.74	38138557.82	38138557.89	0.1611	0.1193
Mercury	99709-08-27 08:38 G	38139262.75	38139262.86	38139262.97	0.1597	0.0547
Mercury	99716-04-15 07:11 G	38141685.63	38141685.80	38141685.96	0.1942	0.0163
Venus	99717-10-09 16:47 G	38142228.03	38142228.20	38142228.38	0.1700	0.0229
Mercury	99719-01-17 20:23 G	38142693.24	38142693.35	38142693.47	0.1600	0.0132
Venus	99724-03-21 06:14 G	38144582.66	38144582.76	38144582.86	0.1851	0.1462
Mercury	99725-09-04 22:33 G	38145115.33	38145115.44	38145115.55	0.1936	0.1422
Mercury	99728-06-09 08:09 G	38146123.73	38146123.84	38146123.96	0.1603	0.0296
Mercury	99730-05-15 09:21 G	38146828.84	38146828.89	38146828.94	0.1591	0.1432
Mercury	99737-10-30 19:55 G	38149554.22	38149554.33	38149554.43	0.1607	0.0724
Mercury	99739-10-05 21:07 G	38150259.29	38150259.38	38150259.46	0.1594	0.1015
Mercury	99746-05-25 16:19 G	38152683.14	38152683.18	38152683.23	0.1947	0.1851

Mercury	99747-03-23 07:26 G	38152984.73	38152984.81	38152984.89	0.1610	0.1150
Mercury	99749-02-25 08:38 G	38153689.75	38153689.86	38153689.97	0.1597	0.0593
Mercury	99755-10-15 07:55 G	38156112.67	38156112.83	38156113.00	0.1942	0.0279
Venus	99756-03-20 20:38 G	38156270.32	38156270.36	38156270.41	0.1835	0.1760
Mercury	99756-08-12 19:11 G	38156415.28	38156415.30	38156415.32	0.1614	0.1577
Mercury	99758-07-18 20:23 G	38157120.23	38157120.35	38157120.47	0.1600	0.0174
Mercury	99765-03-05 23:02 G	38159542.34	38159542.46	38159542.58	0.1936	0.1324
Mercury	99767-12-09 08:09 G	38160550.72	38160550.84	38160550.95	0.1603	0.0249
Mercury	99769-11-13 09:21 G	38161255.85	38161255.89	38161255.93	0.1591	0.1481
Mercury	99777-04-30 19:55 G	38163981.22	38163981.33	38163981.43	0.1606	0.0673
Mercury	99779-04-05 20:52 G	38164686.29	38164686.37	38164686.46	0.1594	0.1065
Venus	99783-08-07 02:52 G	38166270.45	38166270.62	38166270.80	0.1697	0.0047
Mercury	99786-09-21 07:26 G	38167411.73	38167411.81	38167411.90	0.1610	0.1101
Mercury	99788-08-26 08:38 G	38168116.75	38168116.86	38168116.97	0.1596	0.0645
Mercury	99795-04-15 08:52 G	38170539.70	38170539.87	38170540.03	0.1942	0.0392
Mercury	99796-02-11 19:11 G	38170842.27	38170842.30	38170842.33	0.1614	0.1531
Mercury	99798-01-16 20:23 G	38171547.23	38171547.35	38171547.46	0.1600	0.0224
Mercury	99804-09-05 00:14 G	38173969.38	38173969.51	38173969.65	0.1936	0.1185
Mercury	99807-06-10 08:09 G	38174977.72	38174977.84	38174977.95	0.1603	0.0203
Mercury	99809-05-15 09:07 G	38175682.85	38175682.88	38175682.91	0.1591	0.1529
Moon	99811-01-25 20:38 G	38176303.23	38176303.36	38176303.49	0.1652	0.1194
Earth	99811-01-26 02:52 G	38176303.46	38176303.62	38176303.78	0.1652	0.0890 *
Mercury	99816-10-30 19:40 G	38178408.22	38178408.32	38178408.43	0.1607	0.0628
Mercury	99818-10-05 20:52 G	38179113.29	38179113.37	38179113.46	0.1594	0.1113
Venus	99822-01-17 02:52 G	38180312.49	38180312.62	38180312.74	0.1839	0.1287
Mercury	99826-03-23 07:26 G	38181838.73	38181838.81	38181838.90	0.1610	0.1054
Mercury	99828-02-26 08:38 G	38182543.75	38182543.86	38182543.96	0.1597	0.0692
Mercury	99834-10-15 09:50 G	38184966.75	38184966.91	38184967.07	0.1943	0.0528
Mercury	99835-08-13 19:11 G	38185269.26	38185269.30	38185269.34	0.1614	0.1482
Mercury	99837-07-18 20:23 G	38185974.23	38185974.35	38185974.46	0.1599	0.0274

Mercury	99844-03-06 01:11 G	38188396.41	38188396.55	38188396.69	0.1936	0.1067
Mercury	99846-12-09 08:09 G	38189404.72	38189404.84	38189404.95	0.1603	0.0163
Mercury	99848-11-13 09:07 G	38190109.88	38190109.88	38190109.89	0.1591	0.1584
Venus	99849-06-04 12:57 G	38190312.87	38190313.04	38190313.21	0.1693	0.0311
Mercury	99856-04-30 19:40 G	38192835.21	38192835.32	38192835.43	0.1606	0.0581
Mercury	99858-04-05 20:52 G	38193540.29	38193540.37	38193540.45	0.1594	0.1161
Mercury	99865-09-21 07:26 G	38196265.72	38196265.81	38196265.90	0.1610	0.1007
Mercury	99867-08-27 08:38 G	38196970.75	38196970.86	38196970.96	0.1596	0.0742
Mercury	99874-04-15 10:33 G	38199393.78	38199393.94	38199394.10	0.1942	0.0635
Mercury	99875-02-11 19:11 G	38199696.25	38199696.30	38199696.35	0.1614	0.1439
Mercury	99877-01-16 20:23 G	38200401.23	38200401.35	38200401.46	0.1600	0.0325
Mercury	99883-09-05 01:55 G	38202823.44	38202823.58	38202823.73	0.1937	0.0958
Mercury	99886-06-09 07:55 G	38203831.72	38203831.83	38203831.95	0.1603	0.0120
Venus	99887-11-14 08:09 G	38204354.68	38204354.84	38204355.00	0.1844	0.0778
Moon	99890-01-28 03:21 G	38205160.49	38205160.64	38205160.79	0.1648	0.1076
Earth	99890-01-28 08:09 G	38205160.69	38205160.84	38205160.99	0.1647	0.1008 *
Mercury	99895-10-30 19:40 G	38207262.21	38207262.32	38207262.43	0.1606	0.0529
Mercury	99897-10-04 20:52 G	38207967.30	38207967.37	38207967.45	0.1594	0.1213
Mercury	99905-03-23 07:26 G	38210692.71	38210692.81	38210692.90	0.1610	0.0961
Mercury	99907-02-26 08:38 G	38211397.76	38211397.86	38211397.96	0.1596	0.0794
Mercury	99913-10-15 11:31 G	38213820.83	38213820.98	38213821.14	0.1943	0.0762
Mercury	99914-08-13 18:57 G	38214123.24	38214123.29	38214123.35	0.1614	0.1393
Venus	99915-04-02 23:16 G	38214355.31	38214355.47	38214355.64	0.1689	0.0572
Mercury	99916-07-18 20:09 G	38214828.23	38214828.34	38214828.46	0.1599	0.0370
Mercury	99923-03-07 03:07 G	38217250.48	38217250.63	38217250.78	0.1937	0.0823
Mercury	99925-12-09 07:55 G	38218258.72	38218258.83	38218258.95	0.1603	0.0068
Mercury	99935-05-01 19:40 G	38221689.21	38221689.32	38221689.43	0.1606	0.0485
Mercury	99937-04-05 20:52 G	38222394.30	38222394.37	38222394.44	0.1593	0.1262
Mercury	99944-09-21 07:26 G	38225119.71	38225119.81	38225119.90	0.1610	0.0911
Mercury	99946-08-27 08:23 G	38225824.75	38225824.85	38225824.95	0.1596	0.0842

Venus	99947-04-01 23:31 G	38226042.45	38226042.48	38226042.50	0.1702	0.1679
Mercury	99953-04-15 12:28 G	38228247.88	38228248.02	38228248.17	0.1943	0.0894
Venus	99953-09-11 14:09 G	38228396.92	38228397.09	38228397.27	0.1849	0.0300
Mercury	99954-02-11 18:57 G	38228550.23	38228550.29	38228550.36	0.1614	0.1343
Mercury	99956-01-17 20:09 G	38229255.23	38229255.34	38229255.46	0.1599	0.0425
Earth	99962-07-31 10:04 G	38231641.83	38231641.92	38231642.02	0.1885	0.1637
Mercury	99962-09-05 04:04 G	38231677.51	38231677.67	38231677.83	0.1937	0.0699
Mercury	99965-06-09 07:55 G	38232685.71	38232685.83	38232685.95	0.1603	0.0009
Mercury	99974-10-30 19:40 G	38236116.20	38236116.32	38236116.43	0.1606	0.0439
Mercury	99976-10-04 20:52 G	38236821.30	38236821.37	38236821.43	0.1593	0.1313
Venus	99981-01-28 09:21 G	38238397.74	38238397.89	38238398.04	0.1685	0.0835
Mercury	99984-03-22 07:11 G	38239546.71	38239546.80	38239546.90	0.1610	0.0867
Mercury	99986-02-25 08:23 G	38240251.76	38240251.85	38240251.95	0.1596	0.0891
Mercury	99992-10-14 13:26 G	38242674.92	38242675.06	38242675.20	0.1943	0.1008
Mercury	99993-08-12 18:57 G	38242977.22	38242977.29	38242977.36	0.1614	0.1297
Mercury	99995-07-18 20:09 G	38243682.23	38243682.34	38243682.45	0.1599	0.0469

101ST MILLENNIUM CE

This is a list of transits visible from Mars in the 101st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	100002-03-06 04:47 G		38246104.54	38246104.70	38246104.86	0.1937	0.0596	
Mercury	100004-12-08 07:55 G		38247112.71	38247112.83	38247112.95	0.1603	0.0042	
Venus	100013-01-27 08:52 G		38250084.77	38250084.87	38250084.97	0.1698	0.1387	

Mercury	100014-04-30 19:40 G	38250543.20	38250543.32	38250543.43	0.1606	0.0388
Mercury	100016-04-04 20:52 G	38251248.31	38251248.37	38251248.42	0.1593	0.1365
Venus	100019-07-09 19:11 G	38252439.13	38252439.30	38252439.47	0.1854	0.0233
Mercury	100023-09-21 07:11 G	38253973.70	38253973.80	38253973.90	0.1610	0.0818
Mercury	100025-08-26 08:23 G	38254678.76	38254678.85	38254678.95	0.1596	0.0943
Mercury	100032-04-14 14:09 G	38257101.96	38257102.09	38257102.23	0.1943	0.1130
Mercury	100033-02-10 18:57 G	38257404.22	38257404.29	38257404.36	0.1614	0.1250
Mercury	100035-01-16 20:09 G	38258109.23	38258109.34	38258109.45	0.1599	0.0516
Mercury	100041-09-04 05:59 G	38260531.58	38260531.75	38260531.91	0.1937	0.0453
Mercury	100044-06-08 07:55 G	38261539.71	38261539.83	38261539.94	0.1602	0.0098
Venus	100046-11-25 19:40 G	38262440.19	38262440.32	38262440.45	0.1682	0.1092
Mercury	100053-10-29 19:26 G	38264970.20	38264970.31	38264970.43	0.1606	0.0340
Mercury	100055-10-04 20:38 G	38265675.31	38265675.36	38265675.42	0.1593	0.1416
Mercury	100063-03-22 07:11 G	38268400.70	38268400.80	38268400.90	0.1610	0.0768
Mercury	100065-02-24 08:23 G	38269105.76	38269105.85	38269105.94	0.1596	0.0991
Mercury	100071-10-14 15:21 G	38271529.02	38271529.14	38271529.27	0.1944	0.1271
Mercury	100072-08-11 18:57 G	38271831.21	38271831.29	38271831.36	0.1613	0.1200
Mercury	100074-07-17 20:09 G	38272536.23	38272536.34	38272536.45	0.1599	0.0570
Venus	100078-11-24 19:26 G	38274127.18	38274127.31	38274127.44	0.1694	0.1128
Mercury	100081-03-05 06:43 G	38274958.62	38274958.78	38274958.95	0.1937	0.0335
Mercury	100083-12-08 07:55 G	38275966.71	38275966.83	38275966.94	0.1602	0.0153
Venus	100085-05-06 00:43 G	38276481.37	38276481.53	38276481.69	0.1859	0.0751
Mercury	100090-07-25 22:04 G	38278388.42	38278388.42	38278388.42	0.1931	0.1930
Mercury	100093-04-29 19:26 G	38279397.20	38279397.31	38279397.43	0.1606	0.0290
Earth	100095-01-28 03:35 G	38280035.47	38280035.65	38280035.84	0.1657	0.0187
Moon	100095-01-28 09:07 G	38280035.70	38280035.88	38280036.06	0.1657	0.0224 *
Mercury	100095-04-04 20:38 G	38280102.32	38280102.36	38280102.40	0.1593	0.1464
Mercury	100102-09-21 07:11 G	38282827.70	38282827.80	38282827.90	0.1610	0.0720
Mercury	100104-08-26 08:23 G	38283532.76	38283532.85	38283532.94	0.1596	0.1041
Mercury	100111-04-15 16:04 G	38285956.05	38285956.17	38285956.29	0.1943	0.1376

Mercury	100112-02-11 18:57 G	38286258.21	38286258.29	38286258.37	0.1614	0.1156
Venus	100112-09-23 06:14 G	38286482.65	38286482.76	38286482.86	0.1678	0.1335
Mercury	100114-01-16 20:09 G	38286963.23	38286963.34	38286963.44	0.1599	0.0619
Mercury	100120-09-04 07:40 G	38289385.65	38289385.82	38289385.98	0.1938	0.0223
Mercury	100121-07-04 06:28 G	38289688.76	38289688.77	38289688.79	0.1617	0.1588
Mercury	100123-06-09 07:55 G	38290393.71	38290393.83	38290393.94	0.1602	0.0201
Mercury	100130-01-24 23:16 G	38292815.41	38292815.47	38292815.53	0.1931	0.1794
Mercury	100132-10-29 19:26 G	38293824.20	38293824.31	38293824.43	0.1606	0.0238
Mercury	100134-10-04 20:38 G	38294529.33	38294529.36	38294529.40	0.1593	0.1518
Mercury	100142-03-22 07:11 G	38297254.69	38297254.80	38297254.90	0.1609	0.0673
Mercury	100144-02-25 08:23 G	38297959.76	38297959.85	38297959.93	0.1596	0.1095
Venus	100144-09-22 05:16 G	38298169.57	38298169.72	38298169.87	0.1690	0.0858
Mercury	100150-10-14 17:02 G	38300383.11	38300383.21	38300383.31	0.1944	0.1510
Venus	100151-03-04 05:31 G	38300523.61	38300523.73	38300523.86	0.1864	0.1300
Mercury	100151-08-12 18:43 G	38300685.20	38300685.28	38300685.37	0.1613	0.1108
Mercury	100153-07-17 20:09 G	38301390.23	38301390.34	38301390.44	0.1599	0.0670
Mercury	100160-03-05 08:38 G	38303812.69	38303812.86	38303813.03	0.1938	0.0087
Mercury	100161-01-02 06:28 G	38304115.74	38304115.77	38304115.80	0.1618	0.1543
Mercury	100162-12-08 07:40 G	38304820.71	38304820.82	38304820.94	0.1602	0.0242
Mercury	100169-07-25 23:45 G	38307242.41	38307242.49	38307242.57	0.1931	0.1699
Mercury	100172-04-29 19:26 G	38308251.19	38308251.31	38308251.42	0.1606	0.0192
Mercury	100174-04-04 20:38 G	38308956.34	38308956.36	38308956.38	0.1593	0.1568
Venus	100178-07-21 16:19 G	38310525.13	38310525.18	38310525.23	0.1675	0.1586
Mercury	100181-09-20 07:11 G	38311681.69	38311681.80	38311681.91	0.1609	0.0621
Mercury	100183-08-26 08:23 G	38312386.77	38312386.85	38312386.93	0.1596	0.1145
Mercury	100190-04-14 17:59 G	38314810.17	38314810.25	38314810.34	0.1944	0.1646
Mercury	100191-02-10 18:43 G	38315112.20	38315112.28	38315112.37	0.1613	0.1057
Mercury	100193-01-15 20:09 G	38315817.23	38315817.34	38315817.44	0.1599	0.0722
Mercury	100199-09-04 09:35 G	38318239.73	38318239.90	38318240.07	0.1938	0.0042
Mercury	100200-07-04 06:28 G	38318542.73	38318542.77	38318542.81	0.1617	0.1496

Mercury	100202-06-09 07:40 G	38319247.71	38319247.82	38319247.94	0.1602	0.0291
Mercury	100209-01-25 00:57 G	38321669.44	38321669.54	38321669.64	0.1932	0.1558
Venus	100210-07-21 15:50 G	38322212.00	38322212.16	38322212.32	0.1687	0.0603
Mercury	100211-10-30 19:26 G	38322678.19	38322678.31	38322678.42	0.1606	0.0149
Venus	100216-12-30 10:19 G	38324565.92	38324565.93	38324565.95	0.1869	0.1858
Mercury	100221-03-22 07:11 G	38326108.69	38326108.80	38326108.90	0.1609	0.0576
Mercury	100223-02-25 08:09 G	38326813.77	38326813.84	38326813.92	0.1596	0.1196
Mercury	100229-10-14 18:57 G	38329237.22	38329237.29	38329237.35	0.1944	0.1759
Mercury	100230-08-12 18:43 G	38329539.19	38329539.28	38329539.37	0.1613	0.1009
Mercury	100232-07-17 19:55 G	38330244.23	38330244.33	38330244.44	0.1599	0.0771
Mercury	100239-03-06 10:19 G	38332666.76	38332666.93	38332667.10	0.1938	0.0159
Mercury	100240-01-03 06:28 G	38332969.72	38332969.77	38332969.82	0.1617	0.1445
Mercury	100241-12-08 07:40 G	38333674.71	38333674.82	38333674.93	0.1602	0.0341
Mercury	100248-07-26 02:09 G	38336096.47	38336096.59	38336096.70	0.1932	0.1427
Venus	100248-12-30 03:07 G	38336253.53	38336253.63	38336253.73	0.1852	0.1526
Mercury	100251-04-30 19:26 G	38337105.19	38337105.31	38337105.42	0.1605	0.0096
Mercury	100260-09-20 06:57 G	38340535.68	38340535.79	38340535.90	0.1609	0.0526
Mercury	100262-08-26 08:09 G	38341240.77	38341240.84	38341240.92	0.1595	0.1249
Mercury	100269-04-14 19:40 G	38343664.29	38343664.32	38343664.36	0.1944	0.1886
Mercury	100270-02-10 18:43 G	38343966.19	38343966.28	38343966.37	0.1613	0.0961
Mercury	100272-01-16 19:55 G	38344671.23	38344671.33	38344671.43	0.1599	0.0819
Venus	100276-05-18 02:09 G	38346254.42	38346254.59	38346254.76	0.1683	0.0346
Mercury	100278-09-04 11:31 G	38347093.81	38347093.98	38347094.15	0.1938	0.0298
Mercury	100279-07-04 06:14 G	38347396.71	38347396.76	38347396.82	0.1617	0.1400
Mercury	100281-06-08 07:40 G	38348101.70	38348101.82	38348101.93	0.1602	0.0392
Mercury	100288-01-25 02:38 G	38350523.49	38350523.61	38350523.73	0.1932	0.1323
Mercury	100290-10-29 19:11 G	38351532.19	38351532.30	38351532.42	0.1605	0.0070
Moon	100300-01-28 17:02 G	38354910.10	38354910.21	38354910.31	0.1668	0.1386
Earth	100300-01-28 22:19 G	38354910.34	38354910.43	38354910.53	0.1667	0.1430
Mercury	100300-03-22 06:57 G	38354962.68	38354962.79	38354962.91	0.1609	0.0477

Mercury	100302-02-25 08:09 G	38355667.78	38355667.84	38355667.91	0.1596	0.1299
Mercury	100309-08-12 18:43 G	38358393.18	38358393.28	38358393.37	0.1613	0.0910
Mercury	100311-07-18 19:55 G	38359098.24	38359098.33	38359098.43	0.1598	0.0875
Venus	100314-10-28 08:09 G	38360295.70	38360295.84	38360295.99	0.1857	0.1003
Mercury	100318-03-06 12:28 G	38361520.85	38361521.02	38361521.18	0.1938	0.0421
Mercury	100319-01-03 06:14 G	38361823.70	38361823.76	38361823.82	0.1617	0.1352
Mercury	100320-12-08 07:40 G	38362528.70	38362528.82	38362528.93	0.1602	0.0445
Earth	100325-08-06 05:16 G	38364230.62	38364230.72	38364230.82	0.1883	0.1621
Moon	100325-08-06 06:14 G	38364230.74	38364230.76	38364230.78	0.1883	0.1870 *
Mercury	100327-07-27 03:50 G	38364950.52	38364950.66	38364950.79	0.1932	0.1187
Mercury	100330-04-30 19:11 G	38365959.19	38365959.30	38365959.42	0.1605	0.0037
Mercury	100339-09-21 06:57 G	38369389.68	38369389.79	38369389.90	0.1609	0.0425
Mercury	100341-08-26 08:09 G	38370094.78	38370094.84	38370094.90	0.1595	0.1350
Venus	100342-03-16 12:43 G	38370296.86	38370297.03	38370297.21	0.1680	0.0093
Mercury	100349-02-10 18:43 G	38372820.18	38372820.28	38372820.37	0.1613	0.0863
Mercury	100351-01-16 19:55 G	38373525.23	38373525.33	38373525.42	0.1599	0.0923
Mercury	100357-09-04 13:11 G	38375947.89	38375948.05	38375948.21	0.1939	0.0545
Mercury	100358-07-04 06:14 G	38376250.70	38376250.76	38376250.83	0.1617	0.1299
Mercury	100360-06-08 07:40 G	38376955.70	38376955.82	38376955.93	0.1602	0.0497
Mercury	100367-01-25 05:02 G	38379377.57	38379377.71	38379377.85	0.1932	0.1049
Mercury	100369-10-29 19:11 G	38380386.19	38380386.30	38380386.42	0.1605	0.0076
Earth	100379-02-01 04:19 G	38383767.50	38383767.68	38383767.86	0.1663	0.0530
Moon	100379-02-01 06:28 G	38383767.57	38383767.77	38383767.96	0.1662	0.0493 *
Mercury	100379-03-22 06:57 G	38383816.68	38383816.79	38383816.90	0.1609	0.0376
Venus	100380-08-24 13:55 G	38384337.92	38384338.08	38384338.25	0.1862	0.0496
Mercury	100381-02-24 08:09 G	38384521.79	38384521.84	38384521.89	0.1595	0.1404
Mercury	100388-08-11 18:28 G	38387247.18	38387247.27	38387247.37	0.1613	0.0815
Mercury	100390-07-17 19:55 G	38387952.24	38387952.33	38387952.42	0.1598	0.0975
Mercury	100397-03-05 14:23 G	38390374.94	38390375.10	38390375.25	0.1939	0.0678
Mercury	100398-01-02 06:14 G	38390677.69	38390677.76	38390677.83	0.1617	0.1253

Mercury	100399-12-08 07:26 G	38391382.70	38391382.81	38391382.92	0.1602	0.0546
Mercury	100406-07-26 05:16 G	38393804.58	38393804.72	38393804.87	0.1933	0.0952
Venus	100408-01-11 23:02 G	38394339.29	38394339.46	38394339.63	0.1676	0.0160
Mercury	100409-04-29 19:11 G	38394813.18	38394813.30	38394813.42	0.1605	0.0111
Mercury	100418-09-20 06:57 G	38398243.68	38398243.79	38398243.90	0.1609	0.0322
Mercury	100420-08-25 08:09 G	38398948.79	38398948.84	38398948.88	0.1595	0.1455
Mercury	100428-02-10 18:28 G	38401674.17	38401674.27	38401674.37	0.1613	0.0763
Mercury	100430-01-15 19:55 G	38402379.24	38402379.33	38402379.42	0.1598	0.1029
Mercury	100436-09-03 15:07 G	38404801.98	38404802.13	38404802.29	0.1939	0.0804
Mercury	100437-07-03 06:14 G	38405104.68	38405104.76	38405104.84	0.1617	0.1203
Mercury	100439-06-08 07:26 G	38405809.70	38405809.81	38405809.92	0.1601	0.0596
Mercury	100446-01-24 06:43 G	38408231.63	38408231.78	38408231.93	0.1933	0.0802
Venus	100446-06-21 18:43 G	38408380.10	38408380.28	38408380.45	0.1867	0.0070
Mercury	100448-10-28 19:11 G	38409240.18	38409240.30	38409240.42	0.1605	0.0162
Mercury	100458-03-21 06:57 G	38412670.67	38412670.79	38412670.90	0.1609	0.0279
Mercury	100460-02-24 08:09 G	38413375.80	38413375.84	38413375.87	0.1595	0.1507
Mercury	100467-08-11 18:28 G	38416101.17	38416101.27	38416101.38	0.1613	0.0712
Mercury	100469-07-16 19:40 G	38416806.24	38416806.32	38416806.41	0.1598	0.1082
Venus	100473-11-08 09:50 G	38418381.74	38418381.91	38418382.08	0.1673	0.0405
Mercury	100476-03-04 16:04 G	38419229.02	38419229.17	38419229.32	0.1940	0.0928
Mercury	100477-01-01 06:14 G	38419531.68	38419531.76	38419531.84	0.1616	0.1151
Mercury	100478-12-07 07:26 G	38420236.71	38420236.81	38420236.92	0.1601	0.0649
Mercury	100485-07-25 07:40 G	38422658.66	38422658.82	38422658.98	0.1933	0.0672
Mercury	100486-05-24 17:45 G	38422962.23	38422962.24	38422962.26	0.1621	0.1599
Mercury	100488-04-28 19:11 G	38423667.18	38423667.30	38423667.41	0.1605	0.0215
Mercury	100497-09-19 06:43 G	38427097.67	38427097.78	38427097.90	0.1609	0.0233
Mercury	100499-08-25 08:09 G	38427802.82	38427802.84	38427802.86	0.1595	0.1561
Mercury	100507-02-10 18:28 G	38430528.16	38430528.27	38430528.38	0.1612	0.0663
Mercury	100509-01-15 19:40 G	38431233.24	38431233.32	38431233.40	0.1598	0.1131
Venus	100512-04-18 23:59 G	38432422.33	38432422.50	38432422.66	0.1872	0.0598

Mercury	100515-09-04 17:02 G	38433656.08	38433656.21	38433656.35	0.1939	0.1066
Mercury	100516-07-03 06:14 G	38433958.67	38433958.76	38433958.84	0.1617	0.1104
Mercury	100518-06-08 07:26 G	38434663.70	38434663.81	38434663.91	0.1601	0.0699
Mercury	100525-01-24 08:23 G	38437085.69	38437085.85	38437086.01	0.1933	0.0566
Mercury	100525-11-23 17:45 G	38437389.21	38437389.24	38437389.27	0.1621	0.1548
Mercury	100527-10-29 19:11 G	38438094.18	38438094.30	38438094.41	0.1605	0.0267
Mercury	100537-03-21 06:43 G	38441524.67	38441524.78	38441524.90	0.1608	0.0183
Venus	100539-09-06 20:23 G	38442424.19	38442424.35	38442424.51	0.1669	0.0642
Mercury	100546-08-11 18:28 G	38444955.16	38444955.27	38444955.38	0.1612	0.0611
Mercury	100548-07-16 19:40 G	38445660.25	38445660.32	38445660.40	0.1598	0.1188
Mercury	100555-03-05 17:59 G	38448083.12	38448083.25	38448083.38	0.1940	0.1187
Mercury	100556-01-02 05:59 G	38448385.67	38448385.75	38448385.84	0.1616	0.1057
Mercury	100557-12-07 07:26 G	38449090.70	38449090.81	38449090.91	0.1601	0.0752
Mercury	100564-07-25 09:35 G	38451512.73	38451512.90	38451513.06	0.1934	0.0426
Mercury	100565-05-24 17:45 G	38451816.20	38451816.24	38451816.28	0.1621	0.1500
Mercury	100567-04-29 19:11 G	38452521.18	38452521.30	38452521.41	0.1605	0.0320
Venus	100571-09-05 18:43 G	38454111.21	38454111.28	38454111.36	0.1680	0.1513
Mercury	100576-09-19 06:43 G	38455951.67	38455951.78	38455951.90	0.1608	0.0124
Venus	100578-02-14 04:19 G	38456464.55	38456464.68	38456464.81	0.1876	0.1176
Earth	100584-01-31 22:19 G	38458642.26	38458642.43	38458642.60	0.1673	0.0745
Moon	100584-01-31 22:33 G	38458642.29	38458642.44	38458642.60	0.1673	0.0752 *
Mercury	100586-02-09 18:28 G	38459382.16	38459382.27	38459382.38	0.1612	0.0561
Mercury	100588-01-15 19:40 G	38460087.25	38460087.32	38460087.39	0.1598	0.1236
Mercury	100594-09-03 18:57 G	38462510.17	38462510.29	38462510.41	0.1940	0.1320
Mercury	100595-07-03 06:14 G	38462812.67	38462812.76	38462812.85	0.1616	0.1002
Mercury	100597-06-07 07:26 G	38463517.71	38463517.81	38463517.91	0.1601	0.0805
Mercury	100604-01-25 10:33 G	38465939.78	38465939.94	38465940.11	0.1934	0.0286
Mercury	100604-11-23 17:45 G	38466243.19	38466243.24	38466243.29	0.1621	0.1452
Venus	100605-07-05 06:57 G	38466466.65	38466466.79	38466466.94	0.1666	0.0884
Mercury	100606-10-29 19:11 G	38466948.18	38466948.30	38466948.41	0.1604	0.0375

Earth	100609-08-07 18:57 G	38467961.12	38467961.29	38467961.46	0.1873	0.0943
Moon	100609-08-07 22:47 G	38467961.27	38467961.45	38467961.63	0.1874	0.0975 *
Mercury	100613-06-16 01:40 G	38469369.56	38469369.57	38469369.59	0.1927	0.1911
Mercury	100616-03-21 06:43 G	38470378.66	38470378.78	38470378.90	0.1608	0.0071
Mercury	100625-08-11 18:28 G	38473809.16	38473809.27	38473809.38	0.1612	0.0513
Mercury	100627-07-17 19:40 G	38474514.25	38474514.32	38474514.39	0.1598	0.1289
Mercury	100634-03-05 19:55 G	38476937.22	38476937.33	38476937.44	0.1940	0.1451
Mercury	100635-01-02 05:59 G	38477239.66	38477239.75	38477239.85	0.1616	0.0955
Mercury	100636-12-07 07:26 G	38477944.71	38477944.81	38477944.90	0.1601	0.0858
Venus	100637-07-04 05:45 G	38478153.63	38478153.74	38478153.85	0.1677	0.1270
Mercury	100643-07-26 11:02 G	38480366.80	38480366.96	38480367.13	0.1934	0.0185
Venus	100643-12-13 08:38 G	38480506.80	38480506.86	38480506.92	0.1881	0.1765
Mercury	100644-05-24 17:45 G	38480670.18	38480670.24	38480670.29	0.1620	0.1399
Mercury	100646-04-29 18:57 G	38481375.18	38481375.29	38481375.41	0.1605	0.0423
Mercury	100652-12-15 03:07 G	38483796.56	38483796.63	38483796.69	0.1927	0.1765
Mercury	100655-09-20 06:43 G	38484805.66	38484805.78	38484805.90	0.1608	0.0019
Moon	100663-02-03 22:33 G	38487499.32	38487499.44	38487499.57	0.1669	0.1231
Earth	100663-02-04 04:33 G	38487499.57	38487499.69	38487499.82	0.1668	0.1247 *
Mercury	100665-02-09 18:14 G	38488236.15	38488236.26	38488236.38	0.1612	0.0463
Mercury	100667-01-15 19:40 G	38488941.26	38488941.32	38488941.38	0.1598	0.1344
Venus	100671-05-02 18:14 G	38490509.13	38490509.26	38490509.39	0.1663	0.1101
Mercury	100673-09-03 20:52 G	38491364.27	38491364.37	38491364.46	0.1940	0.1579
Mercury	100674-07-03 05:59 G	38491666.66	38491666.75	38491666.85	0.1616	0.0904
Venus	100675-12-13 02:52 G	38492194.55	38492194.62	38492194.68	0.1865	0.1730
Mercury	100676-06-07 07:11 G	38492371.71	38492371.80	38492371.90	0.1601	0.0910
Mercury	100683-01-24 12:28 G	38494793.85	38494794.02	38494794.19	0.1934	0.0035
Mercury	100683-11-23 17:30 G	38495097.17	38495097.23	38495097.30	0.1620	0.1353
Mercury	100685-10-28 18:57 G	38495802.18	38495802.29	38495802.40	0.1604	0.0473
Mercury	100692-06-15 03:35 G	38498223.57	38498223.65	38498223.74	0.1927	0.1659
Mercury	100695-03-21 06:42 G	38499232.66	38499232.78	38499232.89	0.1608	0.0049

Venus	100703-05-02 16:18 G	38502196.04	38502196.18	38502196.32	0.1674	0.1022
Mercury	100704-08-11 18:14 G	38502663.15	38502663.26	38502663.38	0.1612	0.0410
Mercury	100706-07-17 19:40 G	38503368.26	38503368.32	38503368.37	0.1598	0.1397
Mercury	100713-03-05 21:50 G	38505791.33	38505791.41	38505791.48	0.1941	0.1713
Mercury	100714-01-02 05:59 G	38506093.65	38506093.75	38506093.85	0.1616	0.0851
Mercury	100715-12-08 07:11 G	38506798.71	38506798.80	38506798.90	0.1601	0.0966
Mercury	100722-07-26 13:26 G	38509220.89	38509221.06	38509221.23	0.1934	0.0103
Mercury	100723-05-25 17:30 G	38509524.17	38509524.23	38509524.30	0.1620	0.1302
Mercury	100725-04-29 18:57 G	38510229.18	38510229.29	38510229.40	0.1604	0.0526
Mercury	100731-12-16 04:47 G	38512650.60	38512650.70	38512650.80	0.1928	0.1522
Mercury	100734-09-20 06:28 G	38513659.66	38513659.77	38513659.89	0.1608	0.0106
Venus	100737-02-28 04:47 G	38514551.60	38514551.70	38514551.81	0.1659	0.1336
Venus	100741-10-10 07:26 G	38516236.68	38516236.81	38516236.95	0.1870	0.1180
Mercury	100744-02-10 18:14 G	38517090.15	38517090.26	38517090.38	0.1612	0.0358
Mercury	100746-01-15 19:40 G	38517795.27	38517795.32	38517795.36	0.1598	0.1449
Mercury	100752-09-03 22:47 G	38520218.40	38520218.45	38520218.50	0.1940	0.1844
Mercury	100753-07-03 05:59 G	38520520.65	38520520.75	38520520.85	0.1616	0.0802
Mercury	100755-06-08 07:11 G	38521225.71	38521225.80	38521225.89	0.1601	0.1015
Mercury	100762-01-24 13:54 G	38523647.92	38523648.08	38523648.25	0.1934	0.0215
Mercury	100762-11-23 17:30 G	38523951.16	38523951.23	38523951.31	0.1620	0.1249
Mercury	100764-10-28 18:57 G	38524656.18	38524656.29	38524656.40	0.1604	0.0578
Venus	100769-02-27 03:06 G	38526238.47	38526238.63	38526238.78	0.1670	0.0775
Mercury	100771-06-16 05:45 G	38527077.63	38527077.74	38527077.86	0.1928	0.1386
Mercury	100774-03-21 06:42 G	38528086.66	38528086.78	38528086.89	0.1608	0.0148
Mercury	100783-08-11 18:14 G	38531517.15	38531517.26	38531517.37	0.1612	0.0305
Mercury	100785-07-16 19:40 G	38532222.28	38532222.32	38532222.35	0.1597	0.1506
Mercury	100793-01-01 05:59 G	38534947.64	38534947.75	38534947.85	0.1616	0.0753
Mercury	100794-12-07 07:11 G	38535652.71	38535652.80	38535652.89	0.1601	0.1067
Mercury	100801-07-25 15:06 G	38538074.97	38538075.13	38538075.30	0.1935	0.0358
Mercury	100802-05-24 17:30 G	38538378.15	38538378.23	38538378.31	0.1620	0.1200

Venus	100802-12-26 16:04 G	38538594.11	38538594.17	38538594.23	0.1656	0.1549
Mercury	100804-04-28 18:57 G	38539083.18	38539083.29	38539083.40	0.1604	0.0630
Venus	100807-08-07 12:42 G	38540278.87	38540279.03	38540279.20	0.1875	0.0647
Mercury	100810-12-15 06:42 G	38541504.65	38541504.78	38541504.90	0.1928	0.1269
Mercury	100813-09-19 06:28 G	38542513.66	38542513.77	38542513.89	0.1608	0.0193
Mercury	100823-02-09 18:14 G	38545944.15	38545944.26	38545944.38	0.1612	0.0252
Mercury	100825-01-14 19:26 G	38546649.29	38546649.31	38546649.34	0.1598	0.1557
Mercury	100832-07-02 05:59 G	38549374.64	38549374.75	38549374.85	0.1615	0.0698
Mercury	100834-06-07 07:11 G	38550079.72	38550079.80	38550079.88	0.1601	0.1123
Venus	100834-12-25 13:40 G	38550280.91	38550281.07	38550281.24	0.1667	0.0537
Mercury	100841-01-23 16:18 G	38552502.02	38552502.18	38552502.34	0.1935	0.0494
Mercury	100841-11-22 17:30 G	38552805.15	38552805.23	38552805.31	0.1620	0.1151
Mercury	100843-10-28 18:57 G	38553510.18	38553510.29	38553510.39	0.1604	0.0685
Mercury	100850-06-15 07:26 G	38555931.68	38555931.81	38555931.95	0.1928	0.1142
Mercury	100851-04-15 05:02 G	38556235.70	38556235.71	38556235.73	0.1624	0.1604
Mercury	100853-03-20 06:28 G	38556940.65	38556940.77	38556940.89	0.1608	0.0241
Mercury	100862-08-10 18:14 G	38560371.14	38560371.26	38560371.37	0.1611	0.0203
Earth	100868-02-03 21:06 G	38562374.19	38562374.38	38562374.57	0.1679	0.0084
Moon	100868-02-04 03:21 G	38562374.45	38562374.64	38562374.84	0.1679	0.0071 *
Mercury	100872-01-01 05:45 G	38563801.64	38563801.74	38563801.85	0.1616	0.0650
Venus	100873-06-03 17:02 G	38564321.04	38564321.21	38564321.39	0.1879	0.0077
Mercury	100873-12-06 07:11 G	38564506.72	38564506.80	38564506.88	0.1601	0.1175
Mercury	100880-07-24 16:47 G	38566929.04	38566929.20	38566929.36	0.1935	0.0600
Mercury	100881-05-23 17:30 G	38567232.14	38567232.23	38567232.31	0.1620	0.1096
Mercury	100883-04-28 18:42 G	38567937.18	38567937.28	38567937.39	0.1604	0.0739
Mercury	100889-12-14 08:52 G	38570358.72	38570358.87	38570359.01	0.1929	0.0994
Mercury	100890-10-14 05:02 G	38570662.68	38570662.71	38570662.74	0.1624	0.1552
Mercury	100892-09-18 06:28 G	38571367.66	38571367.77	38571367.89	0.1607	0.0298
Moon	100893-08-08 02:38 G	38571691.42	38571691.61	38571691.80	0.1863	0.0149
Earth	100893-08-08 10:33 G	38571691.75	38571691.94	38571692.13	0.1863	0.0383 *

Venus	100900-10-23 00:42 G	38574323.36	38574323.53	38574323.70	0.1664	0.0296
Mercury	100902-02-09 18:14 G	38574798.14	38574798.26	38574798.37	0.1611	0.0162
Mercury	100911-07-03 05:45 G	38578228.64	38578228.74	38578228.85	0.1615	0.0598
Mercury	100913-06-07 07:11 G	38578933.72	38578933.80	38578933.87	0.1600	0.1228
Mercury	100920-01-24 17:59 G	38581356.10	38581356.25	38581356.41	0.1935	0.0755
Mercury	100920-11-22 17:16 G	38581659.14	38581659.22	38581659.31	0.1620	0.1050
Mercury	100922-10-28 18:42 G	38582364.18	38582364.28	38582364.39	0.1604	0.0791
Mercury	100929-06-15 09:21 G	38584785.74	38584785.89	38584786.04	0.1928	0.0888
Mercury	100930-04-15 05:02 G	38585089.67	38585089.71	38585089.75	0.1624	0.1502
Mercury	100932-03-20 06:28 G	38585794.65	38585794.77	38585794.88	0.1608	0.0349
Venus	100939-04-01 21:50 G	38588363.25	38588363.41	38588363.58	0.1884	0.0503
Mercury	100941-08-10 18:14 G	38589225.14	38589225.26	38589225.37	0.1611	0.0106
Mercury	100951-01-01 05:45 G	38592655.63	38592655.74	38592655.85	0.1615	0.0543
Mercury	100952-12-06 07:11 G	38593360.73	38593360.80	38593360.87	0.1600	0.1284
Mercury	100959-07-25 18:57 G	38595783.14	38595783.29	38595783.44	0.1935	0.0882
Mercury	100960-05-23 17:16 G	38596086.13	38596086.22	38596086.31	0.1620	0.0998
Mercury	100962-04-28 18:42 G	38596791.18	38596791.28	38596791.38	0.1604	0.0843
Venus	100966-08-20 11:30 G	38598365.80	38598365.98	38598366.15	0.1660	0.0065
Mercury	100968-12-14 10:33 G	38599212.78	38599212.94	38599213.09	0.1929	0.0747
Mercury	100969-10-14 05:02 G	38599516.66	38599516.71	38599516.76	0.1624	0.1451
Mercury	100971-09-19 06:28 G	38600221.65	38600221.77	38600221.88	0.1607	0.0402
Mercury	100981-02-08 17:59 G	38603652.14	38603652.25	38603652.37	0.1611	0.0064
Mercury	100990-07-02 05:45 G	38607082.63	38607082.74	38607082.85	0.1615	0.0493
Mercury	100992-06-06 06:57 G	38607787.73	38607787.79	38607787.86	0.1600	0.1337
Mercury	100999-01-23 19:40 G	38610210.18	38610210.32	38610210.46	0.1936	0.0999
Mercury	100999-11-22 17:16 G	38610513.13	38610513.22	38610513.32	0.1619	0.0943

102ND MILLENNIUM CE

This is a list of transits visible from Mars in the 102nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	101001-10-28 18:42	G	38611218.18	38611218.28	38611218.38	0.1604	0.0897	
Venus	101005-01-28 01:54	G	38612405.44	38612405.58	38612405.72	0.1889	0.1110	
Mercury	101008-06-15 11:30	G	38613639.82	38613639.98	38613640.14	0.1929	0.0607	
Mercury	101009-04-15 05:02	G	38613943.65	38613943.71	38613943.76	0.1624	0.1401	
Mercury	101011-03-21 06:28	G	38614648.66	38614648.77	38614648.88	0.1607	0.0457	
Mercury	101020-08-10 17:59	G	38618079.13	38618079.25	38618079.37	0.1611	0.0020	
Mercury	101030-01-01 05:45	G	38621509.62	38621509.74	38621509.85	0.1615	0.0444	
Mercury	101031-12-07 06:57	G	38622214.74	38622214.79	38622214.85	0.1600	0.1390	
Venus	101032-06-17 22:18	G	38622408.26	38622408.43	38622408.61	0.1657	0.0172	
Mercury	101038-07-25 20:52	G	38624637.23	38624637.37	38624637.50	0.1936	0.1146	
Mercury	101039-05-24 17:16	G	38624940.12	38624940.22	38624940.32	0.1619	0.0894	
Mercury	101041-04-28 18:42	G	38625645.19	38625645.28	38625645.37	0.1604	0.0949	
Mercury	101047-12-15 12:14	G	38628066.85	38628067.01	38628067.18	0.1929	0.0492	
Mercury	101048-10-14 04:47	G	38628370.64	38628370.70	38628370.77	0.1624	0.1351	
Mercury	101050-09-19 06:14	G	38629075.65	38629075.76	38629075.87	0.1607	0.0508	
Mercury	101060-02-09 17:59	G	38632506.14	38632506.25	38632506.37	0.1611	0.0066	
Mercury	101069-07-02 05:45	G	38635936.62	38635936.74	38635936.85	0.1615	0.0388	
Venus	101070-11-25 05:45	G	38636447.67	38636447.74	38636447.80	0.1893	0.1733	
Mercury	101071-06-07 06:57	G	38636641.75	38636641.79	38636641.84	0.1600	0.1448	
Moon	101073-02-03 05:30	G	38637248.65	38637248.73	38637248.82	0.1692	0.1467	
Earth	101073-02-03 09:50	G	38637248.84	38637248.91	38637248.97	0.1691	0.1569	
Mercury	101078-01-23 21:50	G	38639064.29	38639064.41	38639064.54	0.1936	0.1283	

Mercury	101078-11-22 17:16 G	38639367.12	38639367.22	38639367.32	0.1619	0.0843
Mercury	101080-10-27 18:42 G	38640072.19	38640072.28	38640072.37	0.1603	0.1005
Mercury	101087-06-15 13:11 G	38642493.88	38642494.05	38642494.22	0.1929	0.0360
Mercury	101088-04-14 04:47 G	38642797.64	38642797.70	38642797.77	0.1624	0.1300
Mercury	101090-03-20 06:14 G	38643502.65	38643502.76	38643502.87	0.1607	0.0559
Venus	101098-04-15 09:50 G	38646450.74	38646450.91	38646451.08	0.1654	0.0387
Mercury	101099-08-10 17:59 G	38646933.13	38646933.25	38646933.37	0.1611	0.0115
Venus	101102-11-26 00:57 G	38648135.53	38648135.54	38648135.56	0.1878	0.1871
Mercury	101109-01-01 05:30 G	38650363.62	38650363.73	38650363.85	0.1615	0.0340
Mercury	101110-12-07 06:57 G	38651068.75	38651068.79	38651068.83	0.1600	0.1499
Mercury	101117-07-25 22:18 G	38653491.32	38653491.43	38653491.55	0.1936	0.1392
Mercury	101118-05-24 17:16 G	38653794.12	38653794.22	38653794.32	0.1619	0.0788
Mercury	101120-04-28 18:42 G	38654499.19	38654499.28	38654499.36	0.1604	0.1059
Mercury	101126-12-15 14:23 G	38656920.94	38656921.10	38656921.27	0.1930	0.0211
Mercury	101127-10-15 04:47 G	38657224.63	38657224.70	38657224.77	0.1624	0.1247
Mercury	101129-09-19 06:14 G	38657929.65	38657929.76	38657929.87	0.1607	0.0616
Mercury	101136-05-06 05:45 G	38660350.70	38660350.74	38660350.78	0.1922	0.1847
Mercury	101139-02-09 17:59 G	38661360.13	38661360.25	38661360.36	0.1611	0.0171
Mercury	101148-07-02 05:30 G	38664790.62	38664790.73	38664790.85	0.1615	0.0285
Mercury	101150-06-07 06:57 G	38665495.76	38665495.79	38665495.81	0.1600	0.1552
Moon	101152-02-07 12:14 G	38666105.82	38666106.01	38666106.20	0.1686	0.0227
Earth	101152-02-07 18:57 G	38666106.11	38666106.29	38666106.47	0.1686	0.0561 *
Mercury	101157-01-23 23:45 G	38667918.39	38667918.49	38667918.59	0.1936	0.1548
Mercury	101157-11-22 17:02 G	38668221.11	38668221.21	38668221.32	0.1619	0.0741
Mercury	101159-10-28 18:28 G	38668926.19	38668926.27	38668926.36	0.1603	0.1113
Venus	101164-02-11 20:23 G	38670493.19	38670493.35	38670493.51	0.1651	0.0615
Mercury	101166-06-15 14:52 G	38671347.96	38671348.12	38671348.29	0.1929	0.0115
Mercury	101167-04-15 04:47 G	38671651.62	38671651.70	38671651.78	0.1624	0.1195
Venus	101168-09-22 05:30 G	38672177.60	38672177.73	38672177.85	0.1882	0.1291
Mercury	101169-03-20 06:14 G	38672356.65	38672356.76	38672356.86	0.1607	0.0667

Mercury 101175-11-05 06:42 G 38674777.71 38674777.78 38674777.85 0.1923 0.1714

Earth 101177-08-11 03:21 G 38675422.45 38675422.64 38675422.84 0.1853 0.0097

Moon 101177-08-11 11:16 G 38675422.78 38675422.97 38675423.16 0.1854 0.0182 *

Mercury 101178-08-10 17:59 G 38675787.13 38675787.25 38675787.36 0.1611 0.0225

Mercury 101188-01-01 05:30 G 38679217.62 38679217.73 38679217.85 0.1615 0.0230

Venus 101196-02-10 17:45 G 38682180.17 38682180.24 38682180.33 0.1661 0.1464

Mercury 101196-07-25 00:28 G 38682345.44 38682345.52 38682345.60 0.1936 0.1674

Mercury 101197-05-23 17:02 G 38682648.11 38682648.21 38682648.32 0.1619 0.0687

Mercury 101199-04-28 18:28 G 38683353.19 38683353.27 38683353.35 0.1603 0.1167

Mercury 101205-12-14 16:04 G 38685775.00 38685775.17 38685775.34 0.1930 0.0045

Mercury 101206-10-14 04:47 G 38686078.62 38686078.70 38686078.78 0.1623 0.1143

Mercury 101208-09-18 06:14 G 38686783.65 38686783.76 38686783.86 0.1607 0.0721

Mercury 101215-05-06 07:40 G 38689204.73 38689204.82 38689204.91 0.1923 0.1584

Mercury 101216-03-05 16:18 G 38689509.16 38689509.18 38689509.19 0.1628 0.1607

Mercury 101218-02-08 17:45 G 38690214.13 38690214.24 38690214.36 0.1611 0.0279

Mercury 101227-07-02 05:30 G 38693644.61 38693644.73 38693644.84 0.1615 0.0181

Venus 101229-12-09 07:54 G 38694535.68 38694535.83 38694535.98 0.1648 0.0823

Venus 101234-07-20 10:04 G 38696219.76 38696219.92 38696220.08 0.1887 0.0723

Mercury 101236-01-24 01:11 G 38696772.49 38696772.55 38696772.61 0.1937 0.1798

Mercury 101236-11-21 17:02 G 38697075.11 38697075.21 38697075.32 0.1619 0.0632

Mercury 101238-10-27 18:28 G 38697780.20 38697780.27 38697780.35 0.1603 0.1222

Mercury 101245-06-14 17:16 G 38700202.05 38700202.22 38700202.38 0.1930 0.0187

Mercury 101246-04-14 04:47 G 38700505.61 38700505.70 38700505.78 0.1623 0.1094

Mercury 101248-03-19 06:14 G 38701210.66 38701210.76 38701210.86 0.1607 0.0778

Mercury 101254-11-04 08:38 G 38703631.75 38703631.86 38703631.97 0.1923 0.1454

Mercury 101255-09-04 16:18 G 38703936.15 38703936.18 38703936.21 0.1628 0.1556

Mercury 101257-08-09 17:45 G 38704641.13 38704641.24 38704641.36 0.1610 0.0327

Venus 101261-12-08 04:47 G 38706222.59 38706222.70 38706222.82 0.1658 0.1231

Mercury 101266-12-31 05:30 G 38708071.61 38708071.73 38708071.84 0.1615 0.0136

Mercury 101276-05-22 17:02 G 38711502.10 38711502.21 38711502.32 0.1619 0.0581

Mercury	101278-04-27 18:28 G	38712207.20	38712207.27	38712207.34	0.1603	0.1275
Mercury	101284-12-13 17:45 G	38714629.08	38714629.24	38714629.41	0.1930	0.0298
Mercury	101285-10-13 04:47 G	38714932.61	38714932.70	38714932.78	0.1623	0.1041
Mercury	101287-09-18 05:59 G	38715637.65	38715637.75	38715637.85	0.1607	0.0831
Mercury	101294-05-05 09:21 G	38718058.77	38718058.89	38718059.02	0.1923	0.1328
Mercury	101295-03-05 16:18 G	38718363.13	38718363.18	38718363.22	0.1628	0.1501
Venus	101295-10-06 19:11 G	38718578.17	38718578.30	38718578.44	0.1645	0.1037
Mercury	101297-02-07 17:45 G	38719068.13	38719068.24	38719068.36	0.1610	0.0383
Venus	101300-05-17 14:09 G	38720261.91	38720262.09	38720262.26	0.1891	0.0116
Mercury	101306-07-02 05:30 G	38722498.61	38722498.73	38722498.84	0.1614	0.0092
Mercury	101315-11-22 17:02 G	38725929.10	38725929.21	38725929.32	0.1619	0.0530
Mercury	101317-10-27 18:28 G	38726634.20	38726634.27	38726634.33	0.1603	0.1331
Mercury	101324-06-14 18:42 G	38729056.12	38729056.28	38729056.45	0.1930	0.0436
Mercury	101325-04-14 04:33 G	38729359.60	38729359.69	38729359.78	0.1623	0.0989
Mercury	101327-03-20 05:59 G	38730064.65	38730064.75	38730064.85	0.1607	0.0883
Venus	101327-10-06 15:50 G	38730265.02	38730265.16	38730265.30	0.1655	0.0995
Mercury	101333-11-04 10:33 G	38732485.81	38732485.94	38732486.07	0.1923	0.1188
Mercury	101334-09-04 16:04 G	38732790.12	38732790.17	38732790.22	0.1628	0.1452
Mercury	101336-08-09 17:45 G	38733495.13	38733495.24	38733495.35	0.1610	0.0435
Mercury	101345-12-31 05:16 G	38736925.61	38736925.72	38736925.84	0.1614	0.0029
Mercury	101355-05-23 17:02 G	38740356.10	38740356.21	38740356.32	0.1618	0.0473
Earth	101357-02-06 05:59 G	38740980.60	38740980.75	38740980.91	0.1698	0.0974
Moon	101357-02-06 12:14 G	38740980.84	38740981.01	38740981.18	0.1698	0.0673 *
Mercury	101357-04-27 18:14 G	38741061.21	38741061.26	38741061.32	0.1603	0.1387
Venus	101361-08-04 06:42 G	38742620.66	38742620.78	38742620.89	0.1642	0.1246
Mercury	101363-12-14 20:09 G	38743483.18	38743483.34	38743483.50	0.1931	0.0590
Mercury	101364-10-13 04:33 G	38743786.60	38743786.69	38743786.78	0.1623	0.0935
Venus	101366-03-14 18:14 G	38744304.10	38744304.26	38744304.43	0.1896	0.0489
Mercury	101366-09-18 05:59 G	38744491.66	38744491.75	38744491.85	0.1606	0.0942
Mercury	101373-05-05 11:16 G	38746912.83	38746912.97	38746913.11	0.1923	0.1066

Mercury	101374-03-05 16:04 G	38747217.11	38747217.17	38747217.23	0.1628	0.1400
Mercury	101376-02-08 17:45 G	38747922.12	38747922.24	38747922.35	0.1610	0.0491
Mercury	101385-07-01 05:16 G	38751352.60	38751352.72	38751352.84	0.1614	0.0038
Venus	101393-08-03 02:52 G	38754307.47	38754307.62	38754307.78	0.1652	0.0771
Mercury	101394-11-21 16:47 G	38754783.09	38754783.20	38754783.32	0.1619	0.0425
Mercury	101396-10-26 18:14 G	38755488.22	38755488.26	38755488.31	0.1603	0.1441
Mercury	101403-06-15 20:23 G	38757910.20	38757910.35	38757910.51	0.1931	0.0692
Mercury	101404-04-14 04:33 G	38758213.59	38758213.69	38758213.79	0.1623	0.0882
Mercury	101406-03-20 05:59 G	38758918.66	38758918.75	38758918.84	0.1606	0.0993
Mercury	101412-11-04 12:14 G	38761339.87	38761340.01	38761340.16	0.1924	0.0928
Mercury	101413-09-04 16:04 G	38761644.11	38761644.17	38761644.23	0.1627	0.1344
Mercury	101415-08-10 17:45 G	38762349.13	38762349.24	38762349.35	0.1610	0.0547
Mercury	101424-12-31 05:16 G	38765779.60	38765779.72	38765779.83	0.1614	0.0093
Venus	101427-06-02 17:59 G	38766663.17	38766663.25	38766663.33	0.1639	0.1454
Venus	101432-01-10 21:50 G	38768346.27	38768346.41	38768346.55	0.1900	0.1130
Mercury	101434-05-23 16:47 G	38769210.09	38769210.20	38769210.32	0.1618	0.0371
Moon	101436-02-10 14:38 G	38769837.96	38769838.11	38769838.26	0.1692	0.0929
Earth	101436-02-10 15:06 G	38769838.00	38769838.13	38769838.27	0.1692	0.1166 *
Mercury	101436-04-27 18:14 G	38769915.22	38769915.26	38769915.30	0.1603	0.1495
Mercury	101442-12-14 21:35 G	38772337.25	38772337.40	38772337.55	0.1931	0.0842
Mercury	101443-10-14 04:33 G	38772640.59	38772640.69	38772640.79	0.1623	0.0830
Mercury	101445-09-18 05:59 G	38773345.66	38773345.75	38773345.84	0.1606	0.1048
Mercury	101452-05-05 13:11 G	38775766.90	38775767.05	38775767.21	0.1924	0.0800
Mercury	101453-03-05 16:04 G	38776071.10	38776071.17	38776071.24	0.1628	0.1296
Mercury	101455-02-08 17:30 G	38776776.12	38776776.23	38776776.34	0.1610	0.0599
Venus	101459-06-01 13:54 G	38778349.92	38778350.08	38778350.25	0.1649	0.0539
Moon	101461-08-12 20:09 G	38779153.14	38779153.34	38779153.54	0.1843	0.0708
Earth	101461-08-12 22:04 G	38779153.23	38779153.42	38779153.61	0.1843	0.0473 *
Mercury	101464-07-01 05:16 G	38780206.60	38780206.72	38780206.83	0.1614	0.0149
Mercury	101473-11-21 16:47 G	38783637.09	38783637.20	38783637.32	0.1618	0.0315

Mercury	101475-10-27 18:14 G	38784342.24	38784342.26	38784342.29	0.1603	0.1552
Mercury	101482-06-14 22:47 G	38786764.30	38786764.45	38786764.59	0.1931	0.0984
Mercury	101483-04-14 04:18 G	38787067.58	38787067.68	38787067.79	0.1623	0.0779
Mercury	101485-03-19 05:59 G	38787772.66	38787772.75	38787772.83	0.1606	0.1105
Mercury	101491-11-04 14:09 G	38790193.93	38790194.09	38790194.25	0.1924	0.0665
Mercury	101492-09-03 15:50 G	38790498.09	38790498.16	38790498.24	0.1627	0.1244
Mercury	101494-08-09 17:30 G	38791203.12	38791203.23	38791203.34	0.1610	0.0652
Venus	101497-11-07 01:11 G	38792388.49	38792388.55	38792388.61	0.1905	0.1782
Mercury	101504-01-01 05:02 G	38794633.60	38794633.71	38794633.83	0.1614	0.0208
Mercury	101513-05-23 16:47 G	38798064.08	38798064.20	38798064.31	0.1618	0.0262
Mercury	101521-12-14 23:16 G	38801191.33	38801191.47	38801191.61	0.1931	0.1097
Mercury	101522-10-14 04:18 G	38801494.58	38801494.68	38801494.79	0.1623	0.0723
Mercury	101524-09-18 05:45 G	38802199.66	38802199.74	38802199.82	0.1606	0.1160
Venus	101525-03-30 01:26 G	38802392.39	38802392.56	38802392.73	0.1646	0.0325
Mercury	101531-05-06 15:06 G	38804620.97	38804621.13	38804621.29	0.1925	0.0531
Mercury	101532-03-05 15:50 G	38804925.09	38804925.16	38804925.24	0.1627	0.1189
Mercury	101534-02-08 17:30 G	38805630.13	38805630.23	38805630.34	0.1610	0.0710
Mercury	101543-07-02 05:02 G	38809060.60	38809060.71	38809060.83	0.1614	0.0257
Mercury	101552-11-21 16:47 G	38812491.08	38812491.20	38812491.31	0.1618	0.0212
Mercury	101561-06-15 00:14 G	38815618.39	38815618.51	38815618.64	0.1932	0.1242
Mercury	101562-04-14 04:18 G	38815921.58	38815921.68	38815921.79	0.1622	0.0670
Mercury	101564-03-19 05:45 G	38816626.67	38816626.74	38816626.82	0.1606	0.1214
Mercury	101570-11-04 16:04 G	38819048.01	38819048.17	38819048.34	0.1924	0.0396
Mercury	101571-09-04 15:50 G	38819352.08	38819352.16	38819352.24	0.1627	0.1136
Mercury	101573-08-09 17:30 G	38820057.13	38820057.23	38820057.33	0.1610	0.0763
Mercury	101581-01-25 03:35 G	38822782.63	38822782.65	38822782.66	0.1632	0.1605
Mercury	101582-12-31 05:02 G	38823487.60	38823487.71	38823487.83	0.1614	0.0307
Venus	101591-01-25 12:14 G	38826434.84	38826435.01	38826435.19	0.1643	0.0106
Mercury	101592-05-22 16:47 G	38826918.08	38826918.20	38826918.31	0.1618	0.0154
Venus	101595-09-05 01:40 G	38828118.45	38828118.57	38828118.70	0.1895	0.1322

Mercury	101600-12-14 01:26 G	38830045.45	38830045.56	38830045.68	0.1932	0.1394
Mercury	101601-10-13 04:18 G	38830348.57	38830348.68	38830348.79	0.1622	0.0616
Mercury	101603-09-18 05:45 G	38831053.67	38831053.74	38831053.81	0.1606	0.1273
Mercury	101610-05-05 16:47 G	38833475.04	38833475.20	38833475.37	0.1925	0.0272
Mercury	101611-03-05 15:50 G	38833779.07	38833779.16	38833779.24	0.1627	0.1084
Mercury	101613-02-07 17:30 G	38834484.13	38834484.23	38834484.33	0.1610	0.0819
Mercury	101619-09-25 08:38 G	38836904.84	38836904.86	38836904.89	0.1917	0.1891
Mercury	101620-07-26 03:21 G	38837209.61	38837209.64	38837209.67	0.1632	0.1554
Mercury	101622-07-01 05:02 G	38837914.60	38837914.71	38837914.82	0.1614	0.0362
Mercury	101631-11-21 16:33 G	38841345.08	38841345.19	38841345.31	0.1618	0.0113
Mercury	101640-06-14 01:54 G	38844472.48	38844472.58	38844472.68	0.1932	0.1497
Earth	101641-02-09 01:26 G	38844712.38	38844712.56	38844712.75	0.1705	0.0403
Moon	101641-02-09 03:06 G	38844712.42	38844712.63	38844712.83	0.1705	0.0179 *
Mercury	101641-04-13 04:18 G	38844775.57	38844775.68	38844775.79	0.1622	0.0562
Mercury	101643-03-19 05:45 G	38845480.68	38845480.74	38845480.80	0.1606	0.1325
Mercury	101649-11-03 17:59 G	38847902.08	38847902.25	38847902.42	0.1925	0.0123
Mercury	101650-09-03 15:50 G	38848206.07	38848206.16	38848206.25	0.1627	0.1028
Mercury	101652-08-08 17:30 G	38848911.13	38848911.23	38848911.32	0.1609	0.0878
Venus	101656-11-22 00:14 G	38850477.33	38850477.51	38850477.68	0.1640	0.0103
Mercury	101659-03-26 09:35 G	38851331.84	38851331.90	38851331.97	0.1917	0.1761
Mercury	101660-01-25 03:21 G	38851636.60	38851636.64	38851636.68	0.1632	0.1502
Venus	101661-07-02 05:59 G	38852160.59	38852160.75	38852160.91	0.1899	0.0723
Mercury	101661-12-30 05:02 G	38852341.60	38852341.71	38852341.82	0.1613	0.0418
Mercury	101671-05-22 16:33 G	38855772.08	38855772.19	38855772.31	0.1618	0.0049
Mercury	101679-12-14 03:06 G	38858899.55	38858899.63	38858899.72	0.1932	0.1655
Mercury	101680-10-12 04:04 G	38859202.57	38859202.67	38859202.79	0.1622	0.0513
Mercury	101682-09-17 05:45 G	38859907.68	38859907.74	38859907.80	0.1606	0.1381
Mercury	101689-05-04 18:42 G	38862329.11	38862329.28	38862329.45	0.1925	0.0020
Mercury	101690-03-04 15:35 G	38862633.06	38862633.15	38862633.25	0.1627	0.0979
Mercury	101692-02-07 17:16 G	38863338.13	38863338.22	38863338.32	0.1610	0.0929

Mercury	101698-09-24 10:18 G	38865758.85	38865758.93	38865759.02	0.1918	0.1641
Mercury	101699-07-26 03:21 G	38866063.59	38866063.64	38866063.69	0.1631	0.1445
Mercury	101701-07-01 05:02 G	38866768.60	38866768.71	38866768.82	0.1614	0.0475
Mercury	101710-11-21 16:33 G	38870199.08	38870199.19	38870199.31	0.1618	0.0036
Mercury	101719-06-15 04:04 G	38873326.61	38873326.67	38873326.73	0.1932	0.1795
Moon	101720-02-13 17:59 G	38873570.20	38873570.25	38873570.29	0.1699	0.1650
Mercury	101720-04-13 04:04 G	38873629.56	38873629.67	38873629.78	0.1622	0.0455
Mercury	101722-03-19 05:45 G	38874334.69	38874334.74	38874334.79	0.1606	0.1440
Venus	101722-09-20 11:30 G	38874519.80	38874519.98	38874520.15	0.1637	0.0313
Venus	101727-04-30 09:35 G	38876202.73	38876202.90	38876203.07	0.1903	0.0086
Mercury	101728-11-03 19:40 G	38876756.15	38876756.32	38876756.49	0.1925	0.0142
Mercury	101729-09-03 15:35 G	38877060.06	38877060.15	38877060.25	0.1627	0.0924
Mercury	101731-08-09 17:16 G	38877765.13	38877765.22	38877765.31	0.1609	0.0984
Mercury	101738-03-26 11:30 G	38880185.88	38880185.98	38880186.08	0.1918	0.1496
Mercury	101739-01-25 03:21 G	38880490.58	38880490.64	38880490.69	0.1632	0.1396
Mercury	101740-12-30 04:47 G	38881195.59	38881195.70	38881195.81	0.1613	0.0530
Moon	101745-08-14 11:30 G	38882883.83	38882883.98	38882884.13	0.1833	0.1090
Earth	101745-08-14 19:11 G	38882884.12	38882884.30	38882884.48	0.1833	0.0738 *
Mercury	101750-05-22 16:33 G	38884626.07	38884626.19	38884626.30	0.1618	0.0070
Mercury	101758-12-14 04:47 G	38887753.68	38887753.70	38887753.72	0.1932	0.1913
Mercury	101759-10-13 04:04 G	38888056.56	38888056.67	38888056.78	0.1622	0.0398
Mercury	101761-09-17 05:45 G	38888761.70	38888761.74	38888761.78	0.1606	0.1496
Mercury	101768-05-04 20:38 G	38891183.20	38891183.36	38891183.53	0.1926	0.0284
Mercury	101769-03-04 15:35 G	38891487.06	38891487.15	38891487.25	0.1626	0.0868
Mercury	101771-02-07 17:16 G	38892192.13	38892192.22	38892192.31	0.1609	0.1043
Mercury	101777-09-24 12:28 G	38894612.90	38894613.02	38894613.14	0.1918	0.1361
Mercury	101778-07-26 03:06 G	38894917.57	38894917.63	38894917.70	0.1631	0.1343
Mercury	101780-06-30 04:47 G	38895622.59	38895622.70	38895622.81	0.1613	0.0585
Venus	101788-07-17 23:02 G	38898562.30	38898562.46	38898562.63	0.1635	0.0515
Mercury	101789-11-20 16:33 G	38899053.07	38899053.19	38899053.30	0.1617	0.0130

Venus	101793-02-24 13:26 G	38900244.90	38900245.06	38900245.23	0.1908	0.0544
Mercury	101799-04-13 04:04 G	38902483.56	38902483.67	38902483.78	0.1622	0.0345
Mercury	101801-03-19 05:30 G	38903188.71	38903188.73	38903188.76	0.1605	0.1551
Mercury	101807-11-04 21:35 G	38905610.24	38905610.40	38905610.56	0.1926	0.0410
Mercury	101808-09-03 15:35 G	38905914.05	38905914.15	38905914.25	0.1627	0.0814
Mercury	101810-08-09 17:16 G	38906619.13	38906619.22	38906619.30	0.1609	0.1098
Mercury	101817-03-26 13:11 G	38909039.92	38909040.05	38909040.17	0.1919	0.1244
Mercury	101818-01-25 03:06 G	38909344.57	38909344.63	38909344.70	0.1631	0.1286
Mercury	101819-12-31 04:47 G	38910049.59	38910049.70	38910049.81	0.1613	0.0640
Venus	101820-07-17 18:57 G	38910249.21	38910249.29	38910249.36	0.1644	0.1477
Mercury	101829-05-22 16:33 G	38913480.07	38913480.19	38913480.30	0.1617	0.0183
Mercury	101838-10-13 04:04 G	38916910.55	38916910.67	38916910.78	0.1622	0.0294
Mercury	101847-05-05 22:33 G	38920037.27	38920037.44	38920037.60	0.1926	0.0546
Mercury	101848-03-04 15:35 G	38920341.05	38920341.15	38920341.25	0.1626	0.0760
Mercury	101850-02-07 17:02 G	38921046.13	38921046.21	38921046.29	0.1609	0.1153
Venus	101854-05-16 10:47 G	38922604.79	38922604.95	38922605.11	0.1632	0.0714
Mercury	101856-09-24 14:23 G	38923466.96	38923467.10	38923467.24	0.1919	0.1090
Mercury	101857-07-26 03:06 G	38923771.56	38923771.63	38923771.71	0.1631	0.1233
Venus	101858-12-23 16:33 G	38924287.06	38924287.19	38924287.32	0.1912	0.1224
Mercury	101859-07-01 04:47 G	38924476.60	38924476.70	38924476.80	0.1613	0.0695
Mercury	101868-11-20 16:18 G	38927907.07	38927907.18	38927907.30	0.1617	0.0236
Mercury	101878-04-13 04:04 G	38931337.55	38931337.67	38931337.78	0.1622	0.0236
Venus	101886-05-15 05:59 G	38934291.64	38934291.75	38934291.87	0.1641	0.1256
Mercury	101886-11-03 23:30 G	38934464.33	38934464.48	38934464.64	0.1926	0.0699
Mercury	101887-09-03 15:35 G	38934768.04	38934768.15	38934768.25	0.1626	0.0703
Mercury	101889-08-08 17:16 G	38935473.14	38935473.22	38935473.29	0.1609	0.1215
Mercury	101896-03-25 15:06 G	38937893.99	38937894.13	38937894.28	0.1919	0.0960
Mercury	101897-01-24 03:06 G	38938198.55	38938198.63	38938198.71	0.1631	0.1180
Mercury	101898-12-30 04:47 G	38938903.59	38938903.70	38938903.80	0.1613	0.0753
Mercury	101908-05-22 16:18 G	38942334.07	38942334.18	38942334.30	0.1617	0.0288

Mercury	101917-10-13 03:50 G	38945764.55	38945764.66	38945764.78	0.1622	0.0182
Venus	101920-03-13 22:33 G	38946647.29	38946647.44	38946647.58	0.1630	0.0921
Venus	101924-10-20 19:40 G	38948329.30	38948329.32	38948329.34	0.1916	0.1896
Moon	101925-02-12 12:42 G	38948443.84	38948444.03	38948444.21	0.1713	0.0282
Earth	101925-02-12 19:54 G	38948444.14	38948444.33	38948444.52	0.1713	0.0151 *
Mercury	101926-05-06 00:14 G	38948891.36	38948891.51	38948891.66	0.1926	0.0818
Mercury	101927-03-05 15:35 G	38949195.04	38949195.15	38949195.25	0.1626	0.0651
Mercury	101929-02-07 17:02 G	38949900.14	38949900.21	38949900.28	0.1609	0.1268
Mercury	101935-09-25 16:04 G	38952321.01	38952321.17	38952321.32	0.1919	0.0834
Mercury	101936-07-26 03:06 G	38952625.55	38952625.63	38952625.71	0.1631	0.1121
Mercury	101938-07-01 04:47 G	38953330.60	38953330.70	38953330.80	0.1613	0.0810
Mercury	101945-12-16 14:23 G	38956056.09	38956056.10	38956056.12	0.1636	0.1606
Mercury	101947-11-21 16:18 G	38956761.07	38956761.18	38956761.29	0.1617	0.0348
Venus	101952-03-12 17:45 G	38958334.10	38958334.24	38958334.37	0.1638	0.1045
Mercury	101957-04-13 03:50 G	38960191.54	38960191.66	38960191.78	0.1621	0.0123
Mercury	101965-11-04 01:26 G	38963318.41	38963318.56	38963318.70	0.1927	0.0964
Mercury	101966-09-03 15:21 G	38963622.04	38963622.14	38963622.25	0.1626	0.0597
Mercury	101968-08-08 17:02 G	38964327.14	38964327.21	38964327.27	0.1609	0.1325
Mercury	101975-03-26 17:02 G	38966748.05	38966748.21	38966748.37	0.1919	0.0686
Mercury	101976-01-25 02:52 G	38967052.54	38967052.62	38967052.71	0.1631	0.1073
Mercury	101977-12-30 04:33 G	38967757.60	38967757.69	38967757.79	0.1613	0.0867
Mercury	101985-06-16 14:23 G	38970483.07	38970483.10	38970483.14	0.1636	0.1550
Venus	101986-01-09 10:04 G	38970689.79	38970689.92	38970690.04	0.1627	0.1116
Mercury	101987-05-22 16:18 G	38971188.06	38971188.18	38971188.29	0.1617	0.0402
Mercury	101996-10-12 03:50 G	38974618.55	38974618.66	38974618.78	0.1621	0.0068

103RD MILLENNIUM CE

This is a list of transits visible from Mars in the 103rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	102005-05-05 02:23	G	38977745.46	38977745.60	38977745.73	0.1927	0.1108	
Mercury	102006-03-04 15:21	G	38978049.03	38978049.14	38978049.25	0.1626	0.0539	
Mercury	102008-02-07 17:02	G	38978754.15	38978754.21	38978754.27	0.1609	0.1384	
Mercury	102014-09-24 17:59	G	38981175.09	38981175.25	38981175.41	0.1919	0.0549	
Mercury	102015-07-26 02:52	G	38981479.53	38981479.62	38981479.71	0.1631	0.1015	
Mercury	102017-06-30 04:33	G	38982184.60	38982184.69	38982184.79	0.1613	0.0923	
Venus	102018-01-08 04:47	G	38982376.55	38982376.70	38982376.86	0.1635	0.0832	
Venus	102022-08-17 20:52	G	38984059.25	38984059.37	38984059.50	0.1906	0.1291	
Mercury	102024-12-15 14:23	G	38984910.06	38984910.10	38984910.15	0.1636	0.1496	
Mercury	102026-11-20 16:18	G	38985615.06	38985615.18	38985615.29	0.1617	0.0460	
Earth	102029-08-16 18:28	G	38986615.10	38986615.27	38986615.44	0.1824	0.0893	
Moon	102029-08-17 01:26	G	38986615.38	38986615.56	38986615.73	0.1824	0.0703	*
Mercury	102036-04-12 03:50	G	38989045.54	38989045.66	38989045.77	0.1621	0.0036	
Mercury	102044-11-03 03:06	G	38992172.50	38992172.63	38992172.76	0.1927	0.1237	
Mercury	102045-09-02 15:21	G	38992476.03	38992476.14	38992476.25	0.1626	0.0482	
Mercury	102047-08-08 17:02	G	38993181.16	38993181.21	38993181.26	0.1609	0.1441	
Venus	102051-11-06 21:50	G	38994732.31	38994732.41	38994732.51	0.1625	0.1317	
Mercury	102054-03-25 18:42	G	38995602.12	38995602.28	38995602.45	0.1920	0.0423	
Mercury	102055-01-24 02:52	G	38995906.53	38995906.62	38995906.72	0.1630	0.0958	
Mercury	102056-12-29 04:33	G	38996611.60	38996611.69	38996611.78	0.1613	0.0982	
Mercury	102064-06-15 14:23	G	38999337.05	38999337.10	38999337.15	0.1636	0.1440	
Mercury	102066-05-21 16:18	G	39000042.07	39000042.18	39000042.29	0.1617	0.0520	

Mercury	102075-10-12 03:50 G	39003472.54	39003472.66	39003472.77	0.1621	0.0072
Venus	102083-11-05 17:02 G	39006419.04	39006419.21	39006419.37	0.1633	0.0635
Mercury	102084-05-04 04:04 G	39006599.55	39006599.67	39006599.79	0.1927	0.1377
Mercury	102085-03-03 15:21 G	39006903.03	39006903.14	39006903.25	0.1626	0.0427
Mercury	102087-02-06 16:47 G	39007608.16	39007608.20	39007608.24	0.1609	0.1498
Venus	102088-06-14 01:11 G	39008101.38	39008101.55	39008101.71	0.1910	0.0670
Mercury	102093-09-23 19:54 G	39010029.17	39010029.33	39010029.50	0.1920	0.0270
Mercury	102094-07-25 02:52 G	39010333.52	39010333.62	39010333.72	0.1630	0.0903
Mercury	102096-06-29 04:33 G	39011038.60	39011038.69	39011038.78	0.1613	0.1037
Mercury	102103-12-16 14:23 G	39013764.04	39013764.10	39013764.16	0.1635	0.1384
Mercury	102105-11-20 16:04 G	39014469.06	39014469.17	39014469.28	0.1617	0.0573
Mercury	102115-04-13 03:50 G	39017899.54	39017899.66	39017899.77	0.1621	0.0118
Venus	102117-09-04 09:35 G	39018774.84	39018774.90	39018774.97	0.1622	0.1503
Mercury	102123-11-04 05:16 G	39021026.62	39021026.72	39021026.82	0.1928	0.1536
Mercury	102124-09-02 15:21 G	39021330.03	39021330.14	39021330.25	0.1625	0.0369
Mercury	102126-08-08 17:02 G	39022035.18	39022035.21	39022035.23	0.1608	0.1560
Earth	102130-02-12 01:11 G	39023318.52	39023318.55	39023318.58	0.1726	0.1693
Mercury	102133-03-25 20:52 G	39024456.20	39024456.37	39024456.54	0.1920	0.0140
Mercury	102134-01-24 02:52 G	39024760.52	39024760.62	39024760.72	0.1630	0.0849
Mercury	102135-12-30 04:33 G	39025465.60	39025465.69	39025465.77	0.1612	0.1095
Mercury	102142-08-15 12:28 G	39027885.97	39027886.02	39027886.08	0.1912	0.1784
Mercury	102143-06-16 14:23 G	39028191.03	39028191.10	39028191.16	0.1635	0.1331
Mercury	102145-05-21 16:04 G	39028896.06	39028896.17	39028896.28	0.1617	0.0628
Venus	102149-09-03 04:18 G	39030461.51	39030461.68	39030461.85	0.1630	0.0429
Venus	102154-04-12 04:18 G	39032143.51	39032143.68	39032143.85	0.1914	0.0019
Mercury	102154-10-12 03:35 G	39032326.54	39032326.65	39032326.77	0.1621	0.0166
Mercury	102163-05-05 05:45 G	39035453.66	39035453.74	39035453.83	0.1927	0.1654
Mercury	102164-03-03 15:21 G	39035757.02	39035757.14	39035757.25	0.1626	0.0316
Mercury	102172-09-23 21:35 G	39038883.23	39038883.40	39038883.57	0.1921	0.0035
Mercury	102173-07-25 02:52 G	39039187.52	39039187.62	39039187.72	0.1630	0.0788

Mercury	102175-06-30 04:33 G	39039892.61	39039892.69	39039892.77	0.1612	0.1155
Mercury	102182-02-13 13:40 G	39042312.99	39042313.07	39042313.16	0.1913	0.1634
Mercury	102182-12-15 14:09 G	39042618.02	39042618.09	39042618.16	0.1635	0.1276
Mercury	102184-11-19 16:04 G	39043323.07	39043323.17	39043323.28	0.1616	0.0689
Mercury	102194-04-12 03:35 G	39046753.54	39046753.65	39046753.77	0.1621	0.0217
Mercury	102202-11-04 06:57 G	39049880.73	39049880.79	39049880.85	0.1928	0.1805
Mercury	102203-09-03 15:21 G	39050184.02	39050184.14	39050184.25	0.1625	0.0264
Earth	102209-02-15 13:54 G	39052175.90	39052176.08	39052176.25	0.1720	0.0680
Moon	102209-02-15 16:18 G	39052176.03	39052176.18	39052176.33	0.1720	0.0980 *
Mercury	102212-03-25 22:47 G	39053310.28	39053310.45	39053310.62	0.1920	0.0147
Mercury	102213-01-24 02:38 G	39053614.51	39053614.61	39053614.72	0.1630	0.0737
Mercury	102214-12-30 04:33 G	39054319.61	39054319.69	39054319.76	0.1612	0.1212
Venus	102215-07-02 16:18 G	39054504.01	39054504.18	39054504.36	0.1628	0.0236
Venus	102220-02-08 07:54 G	39056185.67	39056185.83	39056185.99	0.1919	0.0649
Mercury	102221-08-15 14:09 G	39056739.99	39056740.09	39056740.19	0.1913	0.1525
Mercury	102222-06-16 14:23 G	39057045.02	39057045.10	39057045.17	0.1635	0.1217
Mercury	102224-05-21 16:04 G	39057750.06	39057750.17	39057750.27	0.1616	0.0745
Mercury	102233-10-12 03:35 G	39061180.54	39061180.65	39061180.77	0.1621	0.0279
Mercury	102243-03-04 15:06 G	39064611.02	39064611.13	39064611.25	0.1625	0.0203
Mercury	102251-09-24 23:45 G	39067737.32	39067737.49	39067737.65	0.1921	0.0287
Mercury	102252-07-25 02:38 G	39068041.51	39068041.61	39068041.72	0.1630	0.0679
Mercury	102254-06-30 04:18 G	39068746.61	39068746.68	39068746.75	0.1612	0.1271
Mercury	102261-02-13 15:35 G	39071167.03	39071167.15	39071167.26	0.1913	0.1365
Mercury	102261-12-15 14:09 G	39071472.01	39071472.09	39071472.17	0.1635	0.1163
Mercury	102263-11-20 16:04 G	39072177.07	39072177.17	39072177.27	0.1616	0.0805
Mercury	102273-04-12 03:35 G	39075607.53	39075607.65	39075607.76	0.1621	0.0333
Venus	102281-04-29 04:18 G	39078546.50	39078546.68	39078546.86	0.1625	0.0038
Mercury	102282-09-02 15:06 G	39079038.02	39079038.13	39079038.25	0.1625	0.0144
Venus	102285-12-05 10:33 G	39080227.82	39080227.94	39080228.07	0.1923	0.1357
Mercury	102291-03-26 00:28 G	39082164.36	39082164.52	39082164.69	0.1921	0.0422

Mercury	102292-01-24 02:38 G	39082468.51	39082468.61	39082468.72	0.1630	0.0620
Mercury	102293-12-29 04:18 G	39083173.62	39083173.68	39083173.75	0.1612	0.1332
Mercury	102300-08-15 16:33 G	39085594.06	39085594.19	39085594.32	0.1913	0.1223
Mercury	102301-06-16 14:09 G	39085899.01	39085899.09	39085899.17	0.1635	0.1106
Mercury	102303-05-22 16:04 G	39086604.07	39086604.17	39086604.26	0.1616	0.0865
Mercury	102310-11-07 01:40 G	39089329.55	39089329.57	39089329.59	0.1640	0.1596
Mercury	102312-10-12 03:35 G	39090034.53	39090034.65	39090034.76	0.1620	0.0393
Moon	102313-08-19 20:09 G	39090346.15	39090346.34	39090346.53	0.1814	0.0774
Earth	102313-08-19 20:09 G	39090346.17	39090346.34	39090346.50	0.1814	0.0934 *
Mercury	102322-03-04 15:06 G	39093465.01	39093465.13	39093465.25	0.1625	0.0085
Mercury	102330-09-25 01:40 G	39096591.41	39096591.57	39096591.73	0.1921	0.0572
Mercury	102331-07-26 02:38 G	39096895.50	39096895.61	39096895.72	0.1630	0.0564
Mercury	102333-06-30 04:18 G	39097600.63	39097600.68	39097600.74	0.1612	0.1387
Mercury	102340-02-14 17:16 G	39100021.08	39100021.22	39100021.35	0.1913	0.1105
Mercury	102340-12-15 14:09 G	39100326.00	39100326.09	39100326.18	0.1635	0.1048
Mercury	102342-11-20 15:50 G	39101031.07	39101031.16	39101031.26	0.1616	0.0921
Venus	102347-02-25 16:04 G	39102588.99	39102589.17	39102589.34	0.1623	0.0168
Mercury	102350-05-08 01:40 G	39103756.53	39103756.57	39103756.61	0.1640	0.1538
Mercury	102352-04-12 03:35 G	39104461.54	39104461.65	39104461.76	0.1620	0.0452
Mercury	102361-09-02 15:06 G	39107892.01	39107892.13	39107892.24	0.1625	0.0033
Mercury	102370-03-26 02:23 G	39111018.45	39111018.60	39111018.76	0.1921	0.0707
Mercury	102371-01-24 02:37 G	39111322.50	39111322.61	39111322.72	0.1630	0.0509
Mercury	102372-12-29 04:18 G	39112027.63	39112027.68	39112027.73	0.1612	0.1446
Mercury	102379-08-15 18:13 G	39114448.12	39114448.26	39114448.41	0.1914	0.0951
Mercury	102380-06-15 14:09 G	39114753.00	39114753.09	39114753.18	0.1635	0.0993
Mercury	102382-05-21 15:49 G	39115458.07	39115458.16	39115458.25	0.1616	0.0978
Venus	102383-10-03 12:42 G	39115958.00	39115958.03	39115958.05	0.1913	0.1884
Mercury	102389-11-06 01:40 G	39118183.52	39118183.57	39118183.61	0.1640	0.1483
Mercury	102391-10-12 03:21 G	39118888.53	39118888.64	39118888.75	0.1620	0.0510
Mercury	102401-03-03 15:06 G	39122319.01	39122319.13	39122319.24	0.1625	0.0042

Mercury	102409-09-24 03:21 G	39125445.49	39125445.64	39125445.79	0.1922	0.0851
Mercury	102410-07-25 02:37 G	39125749.50	39125749.61	39125749.72	0.1629	0.0446
Mercury	102412-06-29 04:18 G	39126454.64	39126454.68	39126454.72	0.1612	0.1508
Venus	102412-12-23 04:04 G	39126631.50	39126631.67	39126631.84	0.1620	0.0352
Moon	102414-02-14 12:13 G	39127049.92	39127050.01	39127050.09	0.1735	0.1567
Earth	102414-02-14 17:16 G	39127050.09	39127050.22	39127050.36	0.1734	0.1229 *
Mercury	102419-02-13 19:25 G	39128875.16	39128875.31	39128875.47	0.1914	0.0799
Mercury	102419-12-15 14:09 G	39129179.99	39129180.09	39129180.18	0.1634	0.0937
Mercury	102421-11-19 15:49 G	39129885.07	39129885.16	39129885.25	0.1616	0.1040
Mercury	102429-05-07 01:25 G	39132610.51	39132610.56	39132610.62	0.1640	0.1429
Mercury	102431-04-12 03:21 G	39133315.53	39133315.64	39133315.75	0.1620	0.0566
Mercury	102440-09-01 15:06 G	39136746.01	39136746.13	39136746.24	0.1625	0.0106
Venus	102444-12-21 22:18 G	39138318.39	39138318.43	39138318.48	0.1628	0.1577
Mercury	102449-03-25 04:33 G	39139872.54	39139872.69	39139872.83	0.1922	0.0998
Venus	102449-07-30 15:35 G	39140000.02	39140000.15	39140000.29	0.1917	0.1216
Mercury	102450-01-23 02:23 G	39140176.49	39140176.60	39140176.72	0.1630	0.0396
Mercury	102451-12-29 04:18 G	39140881.65	39140881.68	39140881.70	0.1612	0.1566
Mercury	102458-08-14 19:54 G	39143302.18	39143302.33	39143302.49	0.1914	0.0688
Mercury	102459-06-15 14:09 G	39143606.99	39143607.09	39143607.18	0.1634	0.0876
Mercury	102461-05-20 15:49 G	39144312.07	39144312.16	39144312.24	0.1616	0.1097
Mercury	102468-11-05 01:25 G	39147037.50	39147037.56	39147037.63	0.1639	0.1369
Mercury	102470-10-11 03:21 G	39147742.54	39147742.64	39147742.75	0.1620	0.0630
Venus	102478-10-20 15:49 G	39150674.00	39150674.16	39150674.33	0.1618	0.0548
Mercury	102480-03-02 14:52 G	39151173.01	39151173.12	39151173.24	0.1625	0.0156
Mercury	102488-09-23 05:16 G	39154299.59	39154299.72	39154299.86	0.1922	0.1139
Mercury	102489-07-24 02:23 G	39154603.49	39154603.60	39154603.72	0.1629	0.0337
Earth	102493-02-17 06:57 G	39155907.65	39155907.79	39155907.93	0.1728	0.1193
Moon	102493-02-17 11:01 G	39155907.86	39155907.96	39155908.07	0.1727	0.1472 *
Mercury	102498-02-12 21:21 G	39157729.23	39157729.39	39157729.55	0.1914	0.0523
Mercury	102498-12-14 13:54 G	39158033.98	39158034.08	39158034.18	0.1634	0.0822

Mercury	102500-11-19 15:49 G	39158739.08	39158739.16	39158739.24	0.1616	0.1157
Mercury	102508-05-07 01:25 G	39161464.49	39161464.56	39161464.63	0.1640	0.1313
Mercury	102510-04-12 03:21 G	39162169.53	39162169.64	39162169.74	0.1620	0.0683
Venus	102510-10-20 10:33 G	39162360.85	39162360.94	39162361.03	0.1626	0.1383
Venus	102515-05-28 19:40 G	39164042.16	39164042.32	39164042.49	0.1921	0.0569
Mercury	102519-09-02 14:52 G	39165600.01	39165600.12	39165600.24	0.1624	0.0215
Mercury	102528-03-25 06:13 G	39168726.64	39168726.76	39168726.89	0.1922	0.1281
Mercury	102529-01-23 02:23 G	39169030.49	39169030.60	39169030.72	0.1629	0.0276
Mercury	102537-08-14 22:18 G	39172156.26	39172156.43	39172156.60	0.1914	0.0379
Mercury	102538-06-15 13:54 G	39172460.98	39172461.08	39172461.18	0.1634	0.0764
Mercury	102540-05-20 15:49 G	39173166.08	39173166.16	39173166.23	0.1615	0.1218
Venus	102544-08-18 04:04 G	39174716.51	39174716.67	39174716.82	0.1616	0.0731
Mercury	102547-11-06 01:25 G	39175891.49	39175891.56	39175891.63	0.1639	0.1255
Mercury	102549-10-11 03:21 G	39176596.54	39176596.64	39176596.74	0.1620	0.0743
Mercury	102559-03-03 14:52 G	39180027.01	39180027.12	39180027.24	0.1624	0.0266
Mercury	102567-09-24 07:25 G	39183153.70	39183153.81	39183153.92	0.1922	0.1430
Mercury	102568-07-24 02:23 G	39183457.49	39183457.60	39183457.72	0.1629	0.0217
Venus	102576-08-16 22:04 G	39186403.31	39186403.42	39186403.54	0.1623	0.1183
Mercury	102577-02-12 23:01 G	39186583.29	39186583.46	39186583.62	0.1915	0.0257
Mercury	102577-12-14 13:54 G	39186887.98	39186888.08	39186888.19	0.1634	0.0703
Mercury	102579-11-19 15:35 G	39187593.08	39187593.15	39187593.22	0.1616	0.1278
Venus	102581-03-24 22:33 G	39188084.27	39188084.44	39188084.61	0.1925	0.0126
Mercury	102586-07-05 15:06 G	39190013.11	39190013.13	39190013.15	0.1907	0.1889
Mercury	102587-05-07 01:25 G	39190318.48	39190318.56	39190318.64	0.1639	0.1197
Mercury	102589-04-11 03:21 G	39191023.54	39191023.64	39191023.74	0.1620	0.0805
Moon	102597-08-20 17:30 G	39194077.06	39194077.23	39194077.39	0.1804	0.0795
Earth	102597-08-20 23:59 G	39194077.34	39194077.50	39194077.67	0.1804	0.0885 *
Mercury	102598-09-01 14:52 G	39194454.01	39194454.12	39194454.23	0.1624	0.0325
Mercury	102607-03-26 08:09 G	39197580.75	39197580.84	39197580.94	0.1922	0.1567
Mercury	102608-01-24 02:23 G	39197884.48	39197884.60	39197884.71	0.1629	0.0161

Venus	102610-06-16 15:49 G	39198759.02	39198759.16	39198759.31	0.1614	0.0921
Mercury	102616-08-15 00:13 G	39201010.34	39201010.51	39201010.67	0.1915	0.0109
Mercury	102617-06-15 13:54 G	39201314.97	39201315.08	39201315.19	0.1634	0.0647
Mercury	102619-05-21 15:35 G	39202020.09	39202020.15	39202020.22	0.1615	0.1336
Mercury	102626-01-04 15:49 G	39204440.10	39204440.16	39204440.23	0.1907	0.1759
Mercury	102626-11-06 01:25 G	39204745.48	39204745.56	39204745.64	0.1639	0.1140
Mercury	102628-10-11 03:21 G	39205450.54	39205450.64	39205450.73	0.1620	0.0863
Mercury	102636-03-28 12:42 G	39208176.03	39208176.03	39208176.04	0.1644	0.1637
Mercury	102638-03-03 14:52 G	39208881.01	39208881.12	39208881.23	0.1624	0.0386
Venus	102642-06-15 10:18 G	39210445.79	39210445.93	39210446.07	0.1621	0.0992
Mercury	102646-09-24 09:06 G	39212007.81	39212007.88	39212007.96	0.1923	0.1719
Venus	102647-01-21 01:54 G	39212126.42	39212126.58	39212126.73	0.1929	0.0803
Mercury	102647-07-25 02:23 G	39212311.48	39212311.60	39212311.72	0.1629	0.0096
Mercury	102656-02-14 01:11 G	39215437.38	39215437.55	39215437.72	0.1915	0.0061
Mercury	102656-12-14 13:54 G	39215741.97	39215742.08	39215742.18	0.1634	0.0590
Mercury	102658-11-19 15:35 G	39216447.10	39216447.15	39216447.21	0.1615	0.1397
Mercury	102665-07-05 16:47 G	39218867.11	39218867.20	39218867.29	0.1907	0.1621
Mercury	102666-05-07 01:25 G	39219172.47	39219172.56	39219172.64	0.1639	0.1085
Mercury	102668-04-11 03:06 G	39219877.54	39219877.63	39219877.73	0.1620	0.0922
Mercury	102675-09-27 12:42 G	39222603.00	39222603.03	39222603.06	0.1644	0.1582
Venus	102676-04-13 04:18 G	39222801.55	39222801.68	39222801.81	0.1612	0.1096
Moon	102676-08-24 13:40 G	39222935.00	39222935.07	39222935.14	0.1811	0.1685
Mercury	102677-09-01 14:52 G	39223308.00	39223308.12	39223308.23	0.1624	0.0446
Mercury	102686-03-25 10:04 G	39226434.89	39226434.92	39226434.96	0.1923	0.1863
Mercury	102687-01-23 02:23 G	39226738.48	39226738.60	39226738.71	0.1629	0.0077
Mercury	102695-08-15 01:40 G	39229864.40	39229864.57	39229864.74	0.1915	0.0172
Mercury	102696-06-14 13:54 G	39230168.97	39230169.08	39230169.19	0.1634	0.0527
Moon	102698-02-17 05:16 G	39230781.58	39230781.72	39230781.87	0.1743	0.1053
Earth	102698-02-17 08:23 G	39230781.68	39230781.85	39230782.03	0.1743	0.0789 *
Mercury	102698-05-20 15:35 G	39230874.10	39230874.15	39230874.20	0.1615	0.1456

Mercury	102705-01-04 17:59 G	39233294.15	39233294.25	39233294.36	0.1908	0.1461
Mercury	102705-11-06 01:11 G	39233599.46	39233599.55	39233599.64	0.1639	0.1024
Mercury	102707-10-12 03:21 G	39234304.54	39234304.64	39234304.73	0.1619	0.0986
Venus	102708-04-12 22:18 G	39234488.28	39234488.43	39234488.59	0.1619	0.0798
Venus	102712-11-18 04:04 G	39236168.57	39236168.67	39236168.78	0.1932	0.1539
Mercury	102715-03-29 12:42 G	39237029.99	39237030.03	39237030.07	0.1644	0.1525
Mercury	102717-03-03 14:37 G	39237735.00	39237735.11	39237735.22	0.1624	0.0505
Mercury	102726-07-25 02:09 G	39241165.48	39241165.59	39241165.71	0.1629	0.0064
Mercury	102735-02-14 03:06 G	39244291.46	39244291.63	39244291.79	0.1916	0.0338
Mercury	102735-12-15 13:40 G	39244595.96	39244596.07	39244596.19	0.1634	0.0475
Mercury	102737-11-19 15:35 G	39245301.11	39245301.15	39245301.19	0.1615	0.1517
Venus	102742-02-09 16:04 G	39246844.07	39246844.17	39246844.28	0.1609	0.1283
Mercury	102744-07-05 18:42 G	39247721.16	39247721.28	39247721.40	0.1907	0.1342
Mercury	102745-05-07 01:11 G	39248026.46	39248026.55	39248026.64	0.1639	0.0966
Mercury	102747-04-12 03:06 G	39248731.54	39248731.63	39248731.72	0.1619	0.1042
Mercury	102754-09-27 12:42 G	39251456.98	39251457.03	39251457.08	0.1644	0.1462
Mercury	102756-09-01 14:37 G	39252162.00	39252162.11	39252162.22	0.1624	0.0566
Mercury	102766-01-23 02:09 G	39255592.48	39255592.59	39255592.71	0.1628	0.0097
Venus	102774-02-08 10:04 G	39258530.76	39258530.92	39258531.09	0.1617	0.0603
Mercury	102774-08-15 04:04 G	39258718.50	39258718.67	39258718.83	0.1916	0.0480
Mercury	102775-06-15 13:40 G	39259022.96	39259023.07	39259023.18	0.1633	0.0414
Moon	102777-02-20 14:37 G	39259639.06	39259639.11	39259639.17	0.1736	0.1646
Earth	102777-02-20 22:33 G	39259639.39	39259639.44	39259639.49	0.1736	0.1667
Mercury	102777-05-20 15:35 G	39259728.13	39259728.15	39259728.17	0.1615	0.1578
Mercury	102784-01-04 19:54 G	39262148.19	39262148.33	39262148.46	0.1908	0.1189
Mercury	102784-11-05 01:11 G	39262453.46	39262453.55	39262453.65	0.1639	0.0907
Mercury	102786-10-11 03:06 G	39263158.55	39263158.63	39263158.71	0.1619	0.1101
Mercury	102794-03-28 12:42 G	39265883.97	39265884.03	39265884.08	0.1644	0.1410
Mercury	102796-03-02 14:37 G	39266589.00	39266589.11	39266589.22	0.1624	0.0622
Mercury	102805-07-24 02:09 G	39270019.48	39270019.59	39270019.71	0.1628	0.0139

Venus	102807-12-08 04:47 G	39270886.63	39270886.70	39270886.77	0.1608	0.1453
Venus	102810-09-15 06:57 G	39271898.73	39271898.79	39271898.85	0.1924	0.1781
Mercury	102814-02-13 04:47 G	39273145.54	39273145.70	39273145.86	0.1916	0.0610
Mercury	102814-12-14 13:40 G	39273449.96	39273450.07	39273450.19	0.1633	0.0354
Mercury	102823-07-05 20:52 G	39276575.23	39276575.37	39276575.51	0.1908	0.1041
Mercury	102824-05-06 01:11 G	39276880.45	39276880.55	39276880.65	0.1638	0.0849
Mercury	102826-04-11 03:06 G	39277585.55	39277585.63	39277585.71	0.1619	0.1165
Mercury	102833-09-26 12:28 G	39280310.96	39280311.02	39280311.09	0.1644	0.1352
Mercury	102835-09-01 14:37 G	39281016.00	39281016.11	39281016.21	0.1623	0.0683
Venus	102839-12-06 22:33 G	39282573.27	39282573.44	39282573.61	0.1614	0.0418
Mercury	102845-01-22 02:09 G	39284446.47	39284446.59	39284446.70	0.1628	0.0197
Mercury	102853-08-14 05:45 G	39287572.59	39287572.74	39287572.90	0.1916	0.0767
Mercury	102854-06-14 13:40 G	39287876.96	39287877.07	39287877.18	0.1633	0.0294
Mercury	102863-01-03 21:35 G	39291002.25	39291002.40	39291002.55	0.1908	0.0912
Mercury	102863-11-05 01:11 G	39291307.45	39291307.55	39291307.65	0.1638	0.0790
Mercury	102865-10-10 03:06 G	39292012.55	39292012.63	39292012.70	0.1619	0.1224
Mercury	102873-03-27 12:28 G	39294737.96	39294738.02	39294738.09	0.1644	0.1291
Mercury	102875-03-02 14:37 G	39295443.01	39295443.11	39295443.21	0.1624	0.0745
Venus	102876-07-12 09:35 G	39295940.75	39295940.90	39295941.04	0.1927	0.1078
Earth	102881-08-23 05:01 G	39297808.53	39297808.71	39297808.88	0.1795	0.0794
Moon	102881-08-23 12:42 G	39297808.85	39297809.03	39297809.22	0.1795	0.0337 *
Mercury	102884-07-23 02:09 G	39298873.48	39298873.59	39298873.70	0.1628	0.0260
Mercury	102893-02-12 06:57 G	39301999.64	39301999.79	39301999.93	0.1916	0.0917
Mercury	102893-12-13 13:40 G	39302303.95	39302304.07	39302304.18	0.1633	0.0238
Mercury	102902-07-05 22:33 G	39305429.29	39305429.44	39305429.60	0.1908	0.0767
Mercury	102903-05-07 00:57 G	39305734.44	39305734.54	39305734.65	0.1638	0.0734
Mercury	102905-04-11 02:52 G	39306439.56	39306439.62	39306439.69	0.1619	0.1284
Venus	102905-10-04 10:18 G	39306615.76	39306615.93	39306616.10	0.1612	0.0221
Mercury	102912-09-26 12:28 G	39309164.95	39309165.02	39309165.10	0.1644	0.1233
Mercury	102914-09-01 14:37 G	39309870.01	39309870.11	39309870.21	0.1623	0.0805

Mercury	102924-01-23 02:09 G	39313300.47	39313300.59	39313300.70	0.1628	0.0321
Mercury	102932-08-14 07:25 G	39316426.67	39316426.81	39316426.95	0.1917	0.1039
Mercury	102933-06-14 13:40 G	39316730.95	39316731.07	39316731.18	0.1633	0.0174
Mercury	102942-01-03 23:45 G	39319856.33	39319856.49	39319856.65	0.1909	0.0605
Venus	102942-05-10 13:11 G	39319982.88	39319983.05	39319983.22	0.1931	0.0403
Mercury	102942-11-05 00:57 G	39320161.44	39320161.54	39320161.65	0.1638	0.0672
Mercury	102944-10-10 03:06 G	39320866.56	39320866.63	39320866.69	0.1619	0.1348
Mercury	102952-03-27 12:28 G	39323591.94	39323592.02	39323592.10	0.1643	0.1175
Mercury	102954-03-02 14:23 G	39324297.00	39324297.10	39324297.20	0.1623	0.0864
Mercury	102963-07-24 02:09 G	39327727.47	39327727.59	39327727.70	0.1628	0.0382
Venus	102971-08-01 22:33 G	39330658.27	39330658.44	39330658.62	0.1610	0.0047
Mercury	102972-02-13 08:37 G	39330853.73	39330853.86	39330853.99	0.1917	0.1209
Mercury	102972-12-13 13:25 G	39331157.95	39331158.06	39331158.18	0.1633	0.0127
Mercury	102981-07-05 00:28 G	39334283.35	39334283.52	39334283.68	0.1909	0.0488
Earth	102982-02-19 22:18 G	39334513.24	39334513.43	39334513.62	0.1751	0.0390
Moon	102982-02-20 05:30 G	39334513.53	39334513.73	39334513.92	0.1751	0.0295 *
Mercury	102982-05-06 00:57 G	39334588.43	39334588.54	39334588.65	0.1638	0.0612
Mercury	102984-04-10 02:52 G	39335293.57	39335293.62	39335293.68	0.1619	0.1405
Mercury	102991-09-26 12:28 G	39338018.94	39338019.02	39338019.10	0.1643	0.1113
Mercury	102993-08-31 14:23 G	39338724.01	39338724.10	39338724.20	0.1623	0.0928

104TH MILLENNIUM CE

This is a list of transits visible from Mars in the 104th millennium CE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Mercury	103001-02-16 23:45 G	39341449.48	39341449.49	39341449.51	0.1649	0.1625
Mercury	103003-01-23 01:54 G	39342154.47	39342154.58	39342154.70	0.1628	0.0442
Venus	103008-03-07 15:35 G	39344024.98	39344025.15	39344025.32	0.1934	0.0325
Mercury	103011-08-15 09:35 G	39345280.78	39345280.90	39345281.02	0.1917	0.1349
Mercury	103012-06-14 13:25 G	39345584.95	39345585.06	39345585.18	0.1633	0.0063
Mercury	103021-01-04 01:25 G	39348710.40	39348710.56	39348710.73	0.1909	0.0331
Mercury	103021-11-05 00:57 G	39349015.43	39349015.54	39349015.65	0.1638	0.0553
Mercury	103023-10-11 02:52 G	39349720.57	39349720.62	39349720.67	0.1619	0.1466
Mercury	103031-03-28 12:28 G	39352445.93	39352446.02	39352446.10	0.1643	0.1059
Mercury	103033-03-02 14:23 G	39353151.01	39353151.10	39353151.19	0.1623	0.0985
Venus	103037-05-30 10:33 G	39354700.77	39354700.94	39354701.12	0.1608	0.0147
Mercury	103040-08-17 23:45 G	39355876.46	39355876.49	39355876.53	0.1649	0.1563
Mercury	103042-07-24 01:54 G	39356581.47	39356581.58	39356581.69	0.1628	0.0500
Mercury	103051-02-13 10:18 G	39359707.83	39359707.93	39359708.04	0.1917	0.1484
Mercury	103051-12-14 13:25 G	39360011.95	39360012.06	39360012.18	0.1633	0.0033
Mercury	103060-07-05 02:37 G	39363137.44	39363137.61	39363137.78	0.1909	0.0181
Mercury	103061-05-06 00:57 G	39363442.43	39363442.54	39363442.65	0.1638	0.0495
Mercury	103063-04-11 02:52 G	39364147.59	39364147.62	39364147.65	0.1618	0.1530
Mercury	103069-11-24 18:28 G	39366567.24	39366567.27	39366567.31	0.1901	0.1841
Mercury	103070-09-26 12:13 G	39366872.92	39366873.01	39366873.11	0.1643	0.1000
Mercury	103072-08-31 14:23 G	39367578.01	39367578.10	39367578.19	0.1623	0.1047
Venus	103074-01-02 18:28 G	39368067.12	39368067.27	39368067.41	0.1938	0.1040
Mercury	103080-02-16 23:45 G	39370303.45	39370303.49	39370303.53	0.1649	0.1507
Mercury	103082-01-22 01:54 G	39371008.47	39371008.58	39371008.69	0.1628	0.0558
Mercury	103090-08-14 11:16 G	39374134.89	39374134.97	39374135.06	0.1917	0.1642
Mercury	103091-06-14 13:25 G	39374438.94	39374439.06	39374439.17	0.1633	0.0068
Mercury	103100-01-04 03:21 G	39377564.47	39377564.64	39377564.81	0.1909	0.0062
Mercury	103100-11-05 00:57 G	39377869.42	39377869.54	39377869.65	0.1638	0.0436
Mercury	103102-10-11 02:52 G	39378574.60	39378574.62	39378574.63	0.1618	0.1590

Venus	103103-03-28 23:01 G	39378743.29	39378743.46	39378743.63	0.1606	0.0322
Mercury	103109-05-26 19:25 G	39380994.24	39380994.31	39380994.38	0.1901	0.1703
Mercury	103110-03-28 12:13 G	39381299.92	39381300.01	39381300.11	0.1643	0.0938
Mercury	103112-03-02 14:23 G	39382005.01	39382005.10	39382005.18	0.1623	0.1110
Mercury	103119-08-18 23:45 G	39384730.43	39384730.49	39384730.54	0.1648	0.1448
Mercury	103121-07-24 01:54 G	39385435.47	39385435.58	39385435.69	0.1627	0.0622
Mercury	103130-02-13 12:28 G	39388561.96	39388562.02	39388562.07	0.1918	0.1792
Mercury	103130-12-14 13:25 G	39388865.94	39388866.06	39388866.17	0.1632	0.0140
Venus	103135-03-27 16:33 G	39390430.15	39390430.19	39390430.24	0.1613	0.1554
Mercury	103139-07-06 04:18 G	39391991.51	39391991.68	39391991.85	0.1910	0.0104
Venus	103139-10-31 20:23 G	39392109.29	39392109.35	39392109.42	0.1941	0.1799
Mercury	103140-05-06 00:42 G	39392296.42	39392296.53	39392296.65	0.1638	0.0377
Mercury	103148-11-24 20:23 G	39395421.26	39395421.35	39395421.45	0.1901	0.1554
Mercury	103149-09-26 12:13 G	39395726.91	39395727.01	39395727.11	0.1643	0.0878
Mercury	103151-09-01 14:09 G	39396432.02	39396432.09	39396432.17	0.1623	0.1170
Mercury	103159-02-16 23:45 G	39399157.43	39399157.49	39399157.55	0.1648	0.1386
Mercury	103161-01-22 01:54 G	39399862.47	39399862.58	39399862.68	0.1628	0.0682
Moon	103165-08-26 09:35 G	39401539.75	39401539.90	39401540.05	0.1785	0.0937
Earth	103165-08-26 10:18 G	39401539.76	39401539.93	39401540.11	0.1785	0.0670 *
Venus	103169-01-23 11:01 G	39402785.79	39402785.96	39402786.12	0.1604	0.0508
Mercury	103170-06-14 13:25 G	39403292.94	39403293.06	39403293.17	0.1632	0.0195
Mercury	103179-01-04 05:30 G	39406418.56	39406418.73	39406418.90	0.1910	0.0265
Mercury	103179-11-05 00:42 G	39406723.42	39406723.53	39406723.65	0.1637	0.0313
Mercury	103188-05-25 21:21 G	39409848.28	39409848.39	39409848.50	0.1902	0.1420
Mercury	103189-03-27 12:13 G	39410153.91	39410154.01	39410154.11	0.1643	0.0819
Mercury	103191-03-02 14:09 G	39410859.02	39410859.09	39410859.17	0.1623	0.1229
Mercury	103198-08-17 23:30 G	39413584.42	39413584.48	39413584.55	0.1648	0.1330
Mercury	103200-07-23 01:40 G	39414289.47	39414289.57	39414289.68	0.1627	0.0744
Venus	103201-01-22 04:33 G	39414472.60	39414472.69	39414472.78	0.1611	0.1361
Mercury	103209-12-13 13:11 G	39417719.94	39417720.05	39417720.17	0.1632	0.0249

Mercury	103218-07-05 05:59 G	39420845.58	39420845.75	39420845.91	0.1910	0.0380
Mercury	103219-05-06 00:42 G	39421150.42	39421150.53	39421150.64	0.1637	0.0252
Mercury	103227-11-24 22:18 G	39424275.31	39424275.43	39424275.56	0.1902	0.1269
Mercury	103228-09-25 12:13 G	39424580.91	39424581.01	39424581.11	0.1642	0.0756
Mercury	103230-08-31 14:09 G	39425286.02	39425286.09	39425286.16	0.1622	0.1295
Venus	103234-11-20 23:30 G	39426828.32	39426828.48	39426828.64	0.1602	0.0681
Venus	103237-08-27 23:30 G	39427839.39	39427839.48	39427839.58	0.1933	0.1587
Mercury	103238-02-15 23:30 G	39428011.41	39428011.48	39428011.55	0.1648	0.1270
Mercury	103240-01-22 01:40 G	39428716.47	39428716.57	39428716.67	0.1627	0.0805
Mercury	103249-06-13 13:11 G	39432146.94	39432147.05	39432147.16	0.1632	0.0307
Mercury	103258-01-03 07:11 G	39435272.64	39435272.80	39435272.96	0.1911	0.0545
Mercury	103258-11-04 00:42 G	39435577.41	39435577.53	39435577.64	0.1637	0.0194
Earth	103266-02-22 10:33 G	39438244.75	39438244.94	39438245.14	0.1760	0.0052
Moon	103266-02-22 12:42 G	39438244.83	39438245.03	39438245.24	0.1760	0.0203 *
Venus	103266-11-19 16:47 G	39438515.09	39438515.20	39438515.32	0.1609	0.1177
Mercury	103267-05-25 23:16 G	39438702.33	39438702.47	39438702.60	0.1902	0.1130
Mercury	103268-03-26 11:59 G	39439007.90	39439008.00	39439008.11	0.1643	0.0702
Mercury	103270-03-01 14:09 G	39439713.03	39439713.09	39439713.15	0.1622	0.1353
Mercury	103277-08-16 23:30 G	39442438.41	39442438.48	39442438.56	0.1648	0.1207
Mercury	103279-07-23 01:40 G	39443143.47	39443143.57	39443143.67	0.1627	0.0866
Mercury	103288-12-12 13:11 G	39446573.94	39446574.05	39446574.16	0.1632	0.0372
Mercury	103297-07-04 08:09 G	39449699.68	39449699.84	39449700.00	0.1911	0.0697
Mercury	103298-05-05 00:28 G	39450004.41	39450004.52	39450004.64	0.1637	0.0148
Venus	103300-09-18 11:45 G	39450870.84	39450870.99	39450871.14	0.1600	0.0859
Venus	103303-06-26 01:54 G	39451881.43	39451881.58	39451881.74	0.1937	0.0853
Mercury	103306-11-25 00:13 G	39453129.36	39453129.51	39453129.65	0.1902	0.0984
Mercury	103307-09-26 11:59 G	39453434.90	39453435.00	39453435.11	0.1642	0.0640
Mercury	103309-08-31 14:09 G	39454140.03	39454140.09	39454140.14	0.1622	0.1416
Mercury	103317-02-15 23:30 G	39456865.40	39456865.48	39456865.56	0.1648	0.1152
Mercury	103319-01-22 01:40 G	39457570.47	39457570.57	39457570.66	0.1627	0.0925

Mercury	103328-06-13 12:57 G	39461000.93	39461001.04	39461001.16	0.1632	0.0435
Venus	103332-09-17 04:47 G	39462557.56	39462557.70	39462557.84	0.1607	0.0983
Mercury	103337-01-03 08:52 G	39464126.72	39464126.87	39464127.02	0.1911	0.0826
Mercury	103337-11-04 00:42 G	39464431.41	39464431.53	39464431.64	0.1637	0.0088
Mercury	103346-05-26 00:57 G	39467556.39	39467556.54	39467556.70	0.1903	0.0840
Mercury	103347-03-27 11:59 G	39467861.89	39467862.00	39467862.11	0.1642	0.0576
Mercury	103349-03-01 14:09 G	39468567.04	39468567.09	39468567.13	0.1622	0.1480
Mercury	103356-08-16 23:30 G	39471292.39	39471292.48	39471292.56	0.1648	0.1092
Mercury	103358-07-23 01:40 G	39471997.48	39471997.57	39471997.66	0.1627	0.0990
Mercury	103366-01-07 10:47 G	39474722.93	39474722.95	39474722.97	0.1653	0.1609
Venus	103366-07-17 00:13 G	39474913.38	39474913.51	39474913.65	0.1599	0.1034
Mercury	103367-12-13 12:57 G	39475427.93	39475428.04	39475428.15	0.1632	0.0494
Venus	103369-04-22 05:16 G	39475923.54	39475923.72	39475923.89	0.1940	0.0153
Mercury	103376-07-04 09:49 G	39478553.77	39478553.91	39478554.06	0.1911	0.0983
Mercury	103377-05-05 00:28 G	39478858.41	39478858.52	39478858.64	0.1637	0.0030
Mercury	103385-11-24 01:54 G	39481983.43	39481983.58	39481983.74	0.1903	0.0695
Mercury	103386-09-25 11:59 G	39482288.89	39482289.00	39482289.11	0.1642	0.0517
Mercury	103388-08-30 13:54 G	39482994.05	39482994.08	39482994.12	0.1622	0.1541
Mercury	103396-02-15 23:16 G	39485719.39	39485719.47	39485719.56	0.1648	0.1029
Mercury	103398-01-21 01:25 G	39486424.48	39486424.56	39486424.65	0.1627	0.1053
Venus	103398-07-15 17:16 G	39486600.07	39486600.22	39486600.37	0.1605	0.0805
Mercury	103405-07-09 10:47 G	39489149.91	39489149.95	39489149.99	0.1653	0.1547
Mercury	103407-06-14 12:57 G	39489854.94	39489855.04	39489855.15	0.1632	0.0559
Mercury	103416-01-04 11:01 G	39492980.82	39492980.96	39492981.09	0.1911	0.1143
Mercury	103416-11-04 00:28 G	39493285.40	39493285.52	39493285.64	0.1637	0.0052
Mercury	103425-05-26 02:52 G	39496410.46	39496410.62	39496410.78	0.1903	0.0555
Mercury	103426-03-27 11:59 G	39496715.89	39496716.00	39496716.11	0.1642	0.0458
Mercury	103428-03-01 13:54 G	39497421.07	39497421.08	39497421.09	0.1622	0.1602
Venus	103432-05-14 12:42 G	39498955.92	39498956.03	39498956.15	0.1597	0.1205
Venus	103435-02-18 07:11 G	39499965.64	39499965.80	39499965.97	0.1943	0.0606

Mercury	103435-08-17 23:16 G	39500146.38	39500146.47	39500146.56	0.1647	0.0969
Mercury	103437-07-23 01:25 G	39500851.48	39500851.56	39500851.65	0.1627	0.1114
Mercury	103445-01-07 10:47 G	39503576.90	39503576.95	39503576.99	0.1653	0.1489
Mercury	103446-12-13 12:57 G	39504281.93	39504282.04	39504282.15	0.1632	0.0615
Earth	103449-08-28 17:01 G	39505271.03	39505271.21	39505271.39	0.1775	0.0520
Moon	103449-08-28 19:25 G	39505271.11	39505271.31	39505271.51	0.1776	0.0467 *
Mercury	103455-07-05 11:30 G	39507407.85	39507407.98	39507408.11	0.1911	0.1261
Mercury	103456-05-05 00:28 G	39507712.40	39507712.52	39507712.64	0.1637	0.0115
Venus	103464-05-13 05:16 G	39510642.56	39510642.72	39510642.89	0.1603	0.0620
Mercury	103464-11-24 03:49 G	39510837.50	39510837.66	39510837.83	0.1904	0.0398
Mercury	103465-09-25 11:59 G	39511142.88	39511143.00	39511143.11	0.1642	0.0395
Mercury	103475-02-15 23:16 G	39514573.37	39514573.47	39514573.56	0.1647	0.0909
Mercury	103477-01-21 01:25 G	39515278.48	39515278.56	39515278.64	0.1626	0.1175
Mercury	103484-07-08 10:33 G	39518003.89	39518003.94	39518004.00	0.1653	0.1429
Mercury	103486-06-13 12:57 G	39518708.93	39518709.04	39518709.14	0.1631	0.0678
Mercury	103495-01-03 12:42 G	39521834.92	39521835.03	39521835.14	0.1912	0.1433
Mercury	103495-11-04 00:28 G	39522139.40	39522139.52	39522139.63	0.1636	0.0181
Venus	103498-03-12 00:57 G	39522998.46	39522998.54	39522998.63	0.1596	0.1386
Venus	103500-12-16 09:35 G	39524007.78	39524007.90	39524008.03	0.1946	0.1356
Mercury	103504-05-26 04:47 G	39525264.53	39525264.70	39525264.86	0.1903	0.0264
Mercury	103505-03-27 11:45 G	39525569.88	39525569.99	39525570.11	0.1642	0.0337
Mercury	103514-08-17 23:16 G	39529000.37	39529000.47	39529000.57	0.1647	0.0844
Mercury	103516-07-23 01:25 G	39529705.49	39529705.56	39529705.63	0.1627	0.1239
Mercury	103524-01-08 10:33 G	39532430.88	39532430.94	39532431.00	0.1653	0.1368
Mercury	103525-12-13 12:57 G	39533135.93	39533136.04	39533136.14	0.1631	0.0744
Venus	103530-03-11 17:45 G	39534685.07	39534685.24	39534685.41	0.1601	0.0443
Mercury	103534-07-05 13:40 G	39536261.98	39536262.07	39536262.16	0.1912	0.1584
Mercury	103535-05-06 00:13 G	39536566.40	39536566.51	39536566.63	0.1636	0.0244
Mercury	103543-11-25 05:45 G	39539691.57	39539691.74	39539691.91	0.1904	0.0118
Mercury	103544-09-25 11:45 G	39539996.88	39539996.99	39539997.11	0.1642	0.0272

Moon	103550-02-25 17:45 G	39541976.06	39541976.24	39541976.41	0.1769	0.0266
Earth	103550-02-25 21:21 G	39541976.20	39541976.39	39541976.58	0.1768	0.0248 *
Mercury	103553-04-15 22:04 G	39543121.36	39543121.42	39543121.47	0.1895	0.1768
Mercury	103554-02-15 23:01 G	39543427.36	39543427.46	39543427.57	0.1647	0.0790
Mercury	103556-01-22 01:25 G	39544132.49	39544132.56	39544132.62	0.1626	0.1300
Mercury	103563-07-09 10:33 G	39546857.87	39546857.94	39546858.01	0.1653	0.1305
Venus	103564-01-08 13:25 G	39547041.03	39547041.06	39547041.10	0.1594	0.1553
Mercury	103565-06-13 12:42 G	39547562.93	39547563.03	39547563.13	0.1631	0.0803
Mercury	103574-01-03 14:23 G	39550689.03	39550689.10	39550689.17	0.1912	0.1714
Mercury	103574-11-04 00:13 G	39550993.40	39550993.51	39550993.63	0.1636	0.0309
Mercury	103583-05-26 06:42 G	39554118.61	39554118.78	39554118.95	0.1904	0.0050
Mercury	103584-03-26 11:45 G	39554423.88	39554423.99	39554424.10	0.1641	0.0208
Mercury	103592-10-14 22:47 G	39557548.37	39557548.45	39557548.54	0.1895	0.1624
Mercury	103593-08-16 23:01 G	39557854.36	39557854.46	39557854.57	0.1647	0.0725
Mercury	103595-07-23 01:11 G	39558559.49	39558559.55	39558559.62	0.1626	0.1366
Venus	103596-01-07 05:59 G	39558727.57	39558727.75	39558727.92	0.1599	0.0264
Mercury	103603-01-07 10:33 G	39561284.86	39561284.94	39561285.01	0.1653	0.1246
Mercury	103604-12-12 12:42 G	39561989.93	39561990.03	39561990.13	0.1631	0.0865
Mercury	103613-07-04 15:21 G	39565116.11	39565116.14	39565116.17	0.1912	0.1876
Mercury	103614-05-05 00:13 G	39565420.40	39565420.51	39565420.62	0.1636	0.0361
Mercury	103622-11-24 07:25 G	39568545.64	39568545.81	39568545.98	0.1904	0.0188
Mercury	103623-09-25 11:45 G	39568850.87	39568850.99	39568851.10	0.1641	0.0153
Mercury	103632-04-14 23:30 G	39571975.38	39571975.48	39571975.59	0.1896	0.1495
Mercury	103633-02-14 23:01 G	39572281.36	39572281.46	39572281.57	0.1647	0.0662
Mercury	103635-01-21 01:11 G	39572986.50	39572986.55	39572986.61	0.1626	0.1429
Mercury	103642-07-08 10:33 G	39575711.86	39575711.94	39575712.02	0.1652	0.1185
Mercury	103644-06-12 12:42 G	39576416.94	39576417.03	39576417.13	0.1631	0.0931
Mercury	103653-11-03 00:13 G	39579847.40	39579847.51	39579847.62	0.1636	0.0425
Venus	103661-11-03 18:42 G	39582770.10	39582770.28	39582770.45	0.1598	0.0101
Mercury	103662-05-25 08:23 G	39582972.68	39582972.85	39582973.02	0.1904	0.0329

Mercury	103663-03-26 11:45 G	39583277.87	39583277.99	39583278.10	0.1641	0.0107
Venus	103664-08-09 15:21 G	39583780.01	39583780.14	39583780.26	0.1942	0.1314
Mercury	103671-10-15 00:42 G	39586402.42	39586402.53	39586402.66	0.1896	0.1329
Mercury	103672-08-15 23:01 G	39586708.35	39586708.46	39586708.57	0.1647	0.0601
Mercury	103674-07-22 01:11 G	39587413.51	39587413.55	39587413.59	0.1626	0.1490
Mercury	103682-01-06 10:33 G	39590138.85	39590138.94	39590139.02	0.1652	0.1124
Mercury	103683-12-12 12:42 G	39590843.94	39590844.03	39590844.12	0.1631	0.0992
Mercury	103691-05-29 21:49 G	39593569.40	39593569.41	39593569.41	0.1658	0.1651
Mercury	103693-05-04 00:13 G	39594274.40	39594274.51	39594274.62	0.1636	0.0490
Mercury	103701-11-24 09:35 G	39597399.73	39597399.90	39597400.06	0.1905	0.0496
Mercury	103702-09-25 11:30 G	39597704.87	39597704.98	39597705.10	0.1641	0.0061
Mercury	103711-04-16 01:40 G	39600829.44	39600829.57	39600829.70	0.1896	0.1190
Mercury	103712-02-15 23:01 G	39601135.35	39601135.46	39601135.57	0.1647	0.0541
Mercury	103714-01-21 01:11 G	39601840.52	39601840.55	39601840.58	0.1626	0.1554
Mercury	103721-07-08 10:18 G	39604565.85	39604565.93	39604566.02	0.1652	0.1062
Mercury	103723-06-13 12:42 G	39605270.94	39605271.03	39605271.11	0.1631	0.1056
Venus	103727-09-02 06:57 G	39606812.61	39606812.79	39606812.96	0.1596	0.0090
Venus	103730-06-07 17:30 G	39607822.06	39607822.23	39607822.40	0.1945	0.0557
Mercury	103730-11-28 21:35 G	39607996.37	39607996.40	39607996.43	0.1658	0.1592
Mercury	103732-11-03 00:13 G	39608701.40	39608701.51	39608701.62	0.1636	0.0553
Moon	103733-08-30 22:18 G	39609002.25	39609002.43	39609002.61	0.1766	0.0128
Earth	103733-08-31 01:25 G	39609002.38	39609002.56	39609002.75	0.1766	0.0316 *
Mercury	103741-05-25 10:18 G	39611826.77	39611826.93	39611827.09	0.1905	0.0627
Mercury	103742-03-26 11:30 G	39612131.86	39612131.98	39612132.10	0.1641	0.0042
Mercury	103750-10-15 02:23 G	39615256.46	39615256.60	39615256.74	0.1896	0.1052
Mercury	103751-08-16 23:01 G	39615562.35	39615562.46	39615562.57	0.1646	0.0472
Mercury	103753-07-22 01:11 G	39616267.54	39616267.55	39616267.55	0.1626	0.1620
Mercury	103761-01-06 10:18 G	39618992.84	39618992.93	39618993.02	0.1652	0.1000
Mercury	103762-12-12 12:42 G	39619697.94	39619698.03	39619698.11	0.1631	0.1122
Mercury	103770-05-29 21:35 G	39622423.36	39622423.40	39622423.44	0.1658	0.1530

Mercury	103772-05-03 23:59 G	39623128.40	39623128.50	39623128.61	0.1636	0.0615
Mercury	103780-11-23 11:16 G	39626253.81	39626253.97	39626254.12	0.1905	0.0782
Mercury	103781-09-24 11:30 G	39626558.86	39626558.98	39626559.10	0.1641	0.0104
Mercury	103790-04-15 03:35 G	39629683.50	39629683.65	39629683.80	0.1896	0.0890
Mercury	103791-02-14 22:47 G	39629989.34	39629989.45	39629989.56	0.1646	0.0416
Venus	103793-06-29 19:25 G	39630855.14	39630855.31	39630855.49	0.1594	0.0260
Venus	103796-04-03 20:23 G	39631864.18	39631864.35	39631864.52	0.1948	0.0172
Mercury	103800-07-08 10:18 G	39633419.84	39633419.93	39633420.03	0.1652	0.0934
Mercury	103802-06-13 12:28 G	39634124.94	39634125.02	39634125.10	0.1631	0.1183
Mercury	103809-11-28 21:35 G	39636850.35	39636850.40	39636850.45	0.1658	0.1465
Mercury	103811-11-03 23:59 G	39637555.40	39637555.50	39637555.61	0.1636	0.0683
Mercury	103820-05-25 12:13 G	39640680.87	39640681.01	39640681.16	0.1905	0.0942
Mercury	103821-03-26 11:30 G	39640985.86	39640985.98	39640986.09	0.1641	0.0173
Venus	103825-06-29 12:13 G	39642541.98	39642542.01	39642542.04	0.1600	0.1570
Mercury	103829-10-15 04:33 G	39644110.53	39644110.69	39644110.84	0.1897	0.0744
Mercury	103830-08-16 22:47 G	39644416.34	39644416.45	39644416.57	0.1646	0.0351
Earth	103834-02-28 06:28 G	39645707.59	39645707.77	39645707.96	0.1777	0.0483
Moon	103834-02-28 12:28 G	39645707.85	39645708.02	39645708.20	0.1777	0.0896 *
Mercury	103840-01-07 10:18 G	39647846.83	39647846.93	39647847.02	0.1652	0.0876
Mercury	103841-12-12 12:28 G	39648551.95	39648552.02	39648552.09	0.1630	0.1246
Mercury	103849-05-29 21:35 G	39651277.34	39651277.40	39651277.45	0.1658	0.1408
Mercury	103851-05-04 23:59 G	39651982.40	39651982.50	39651982.60	0.1635	0.0741
Venus	103859-04-28 08:09 G	39654897.67	39654897.84	39654898.01	0.1593	0.0428
Mercury	103859-11-24 12:57 G	39655107.91	39655108.04	39655108.18	0.1905	0.1084
Mercury	103860-09-24 11:30 G	39655412.86	39655412.98	39655413.09	0.1641	0.0240
Venus	103862-01-30 22:18 G	39655906.28	39655906.43	39655906.58	0.1951	0.0947
Mercury	103869-04-15 05:16 G	39658537.56	39658537.72	39658537.88	0.1897	0.0607
Mercury	103870-02-14 22:47 G	39658843.34	39658843.45	39658843.57	0.1646	0.0286
Mercury	103879-07-08 10:04 G	39662273.82	39662273.92	39662274.02	0.1652	0.0814
Mercury	103881-06-12 12:28 G	39662978.95	39662979.02	39662979.09	0.1630	0.1313

Mercury	103888-11-27 21:21 G	39665704.33	39665704.39	39665704.46	0.1658	0.1345
Mercury	103890-11-02 23:59 G	39666409.40	39666409.50	39666409.60	0.1635	0.0806
Venus	103891-04-27 00:28 G	39666584.44	39666584.52	39666584.61	0.1598	0.1387
Mercury	103899-05-25 13:54 G	39669534.96	39669535.08	39669535.21	0.1906	0.1234
Mercury	103900-03-26 11:16 G	39669839.86	39669839.97	39669840.09	0.1641	0.0299
Mercury	103908-10-15 06:28 G	39672964.60	39672964.77	39672964.93	0.1897	0.0441
Mercury	103909-08-16 22:47 G	39673270.33	39673270.45	39673270.56	0.1646	0.0225
Mercury	103919-01-07 10:04 G	39676700.82	39676700.92	39676701.03	0.1652	0.0749
Mercury	103920-12-12 12:28 G	39677405.96	39677406.02	39677406.08	0.1630	0.1376
Venus	103925-02-23 20:23 G	39678940.19	39678940.35	39678940.51	0.1591	0.0608
Venus	103927-11-29 00:28 G	39679948.44	39679948.52	39679948.60	0.1954	0.1715
Mercury	103928-05-29 21:21 G	39680131.32	39680131.39	39680131.47	0.1657	0.1280
Mercury	103930-05-04 23:59 G	39680836.40	39680836.50	39680836.60	0.1635	0.0873
Mercury	103938-11-24 15:06 G	39683962.02	39683962.13	39683962.25	0.1906	0.1404
Mercury	103939-09-25 11:16 G	39684266.86	39684266.97	39684267.08	0.1640	0.0360
Mercury	103948-04-15 07:11 G	39687391.64	39687391.80	39687391.97	0.1897	0.0303
Mercury	103949-02-14 22:47 G	39687697.33	39687697.45	39687697.56	0.1646	0.0167
Venus	103957-02-22 12:57 G	39690626.92	39690627.04	39690627.15	0.1596	0.1213
Mercury	103958-07-08 10:04 G	39691127.82	39691127.92	39691128.03	0.1651	0.0685
Mercury	103960-06-12 12:28 G	39691832.96	39691833.02	39691833.07	0.1630	0.1441
Mercury	103967-11-28 21:21 G	39694558.31	39694558.39	39694558.47	0.1658	0.1218
Mercury	103969-11-02 23:45 G	39695263.40	39695263.49	39695263.59	0.1635	0.0937
Mercury	103978-05-25 15:49 G	39698389.06	39698389.16	39698389.26	0.1906	0.1533
Mercury	103979-03-26 11:16 G	39698693.86	39698693.97	39698694.08	0.1640	0.0424
Mercury	103987-10-15 08:09 G	39701818.67	39701818.84	39701819.01	0.1898	0.0152
Mercury	103988-08-15 22:47 G	39702124.33	39702124.45	39702124.56	0.1646	0.0095
Venus	103990-12-22 09:21 G	39702982.73	39702982.89	39702983.04	0.1590	0.0768
Mercury	103997-03-06 00:42 G	39705248.49	39705248.53	39705248.58	0.1889	0.1800
Mercury	103998-01-06 10:04 G	39705554.81	39705554.92	39705555.03	0.1651	0.0622
Mercury	103999-12-12 12:28 G	39706259.97	39706260.02	39706260.06	0.1630	0.1509

105TH MILLENNIUM CE

This is a list of transits visible from Mars in the 105th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	104007-05-29 21:21	G	39708985.31	39708985.39	39708985.47	0.1657	0.1155	
Mercury	104009-05-03 23:45	G	39709690.40	39709690.49	39709690.58	0.1635	0.0999	
Earth	104017-09-02 11:30	G	39712733.79	39712733.98	39712734.17	0.1757	0.0046	
Moon	104017-09-02 17:45	G	39712734.04	39712734.24	39712734.44	0.1758	0.0272	*
Mercury	104017-11-23 16:47	G	39712816.13	39712816.20	39712816.28	0.1906	0.1698	
Mercury	104018-09-24 11:16	G	39713120.86	39713120.97	39713121.08	0.1640	0.0489	
Venus	104022-12-21 01:25	G	39714669.43	39714669.56	39714669.69	0.1595	0.1040	
Venus	104025-09-25 04:18	G	39715678.60	39715678.68	39715678.75	0.1948	0.1755	
Mercury	104027-04-15 09:21	G	39716245.72	39716245.89	39716246.06	0.1898	0.0033	
Mercury	104028-02-14 22:33	G	39716551.33	39716551.44	39716551.56	0.1646	0.0057	
Mercury	104036-09-04 01:11	G	39719675.48	39719675.55	39719675.63	0.1889	0.1682	
Mercury	104037-07-07 10:04	G	39719981.81	39719981.92	39719982.03	0.1651	0.0555	
Mercury	104039-06-12 12:13	G	39720686.99	39720687.01	39720687.04	0.1630	0.1571	
Mercury	104046-11-27 21:21	G	39723412.30	39723412.39	39723412.48	0.1657	0.1089	
Mercury	104048-11-01 23:45	G	39724117.41	39724117.49	39724117.58	0.1635	0.1069	
Mercury	104056-04-19 08:37	G	39726842.84	39726842.86	39726842.88	0.1663	0.1632	
Venus	104056-10-18 21:35	G	39727025.26	39727025.40	39727025.54	0.1589	0.0944	
Mercury	104057-05-24 17:59	G	39727243.22	39727243.25	39727243.28	0.1907	0.1862	
Mercury	104058-03-25 11:16	G	39727547.86	39727547.97	39727548.08	0.1640	0.0555	

Mercury	104066-10-14 10:04 G	39730672.76	39730672.92	39730673.09	0.1898	0.0168
Mercury	104067-08-15 22:33 G	39730978.33	39730978.44	39730978.56	0.1645	0.0049
Mercury	104076-03-05 02:23 G	39734102.51	39734102.60	39734102.71	0.1889	0.1513
Mercury	104077-01-05 10:04 G	39734408.81	39734408.92	39734409.03	0.1651	0.0496
Mercury	104086-05-28 21:06 G	39737839.30	39737839.38	39737839.47	0.1657	0.1030
Mercury	104088-05-02 23:45 G	39738544.41	39738544.49	39738544.57	0.1635	0.1130
Venus	104088-10-17 14:09 G	39738711.94	39738712.09	39738712.23	0.1593	0.0871
Venus	104091-07-23 06:42 G	39739720.63	39739720.78	39739720.92	0.1950	0.1005
Mercury	104095-10-19 08:37 G	39741269.82	39741269.86	39741269.90	0.1663	0.1563
Mercury	104097-09-23 11:16 G	39741974.86	39741974.97	39741975.07	0.1640	0.0623
Mercury	104106-04-15 11:01 G	39745099.79	39745099.96	39745100.13	0.1899	0.0304
Mercury	104107-02-14 22:33 G	39745405.33	39745405.44	39745405.56	0.1645	0.0108
Mercury	104115-09-05 03:35 G	39748529.53	39748529.65	39748529.77	0.1890	0.1356
Mercury	104116-07-07 09:49 G	39748835.80	39748835.91	39748836.02	0.1651	0.0431
Moon	104118-03-02 08:37 G	39749438.69	39749438.86	39749439.04	0.1787	0.0619
Earth	104118-03-02 15:06 G	39749438.95	39749439.13	39749439.31	0.1787	0.0689 *
Venus	104122-08-17 10:33 G	39751067.81	39751067.94	39751068.06	0.1587	0.1104
Mercury	104125-11-27 21:06 G	39752266.29	39752266.38	39752266.48	0.1657	0.0965
Mercury	104127-11-02 23:45 G	39752971.41	39752971.49	39752971.57	0.1635	0.1196
Mercury	104135-04-20 08:23 G	39755696.81	39755696.85	39755696.90	0.1663	0.1506
Mercury	104137-03-25 11:01 G	39756401.86	39756401.96	39756402.07	0.1640	0.0684
Mercury	104145-10-14 12:13 G	39759526.84	39759527.01	39759527.17	0.1899	0.0472
Mercury	104146-08-15 22:33 G	39759832.32	39759832.44	39759832.55	0.1645	0.0164
Venus	104154-08-16 02:37 G	39762754.45	39762754.61	39762754.77	0.1592	0.0698
Mercury	104155-03-06 04:18 G	39762956.55	39762956.68	39762956.80	0.1890	0.1229
Mercury	104156-01-06 09:49 G	39763262.80	39763262.91	39763263.03	0.1651	0.0366
Venus	104157-05-20 08:52 G	39763762.69	39763762.87	39763763.04	0.1953	0.0231
Mercury	104165-05-28 21:06 G	39766693.29	39766693.38	39766693.48	0.1657	0.0898
Mercury	104167-05-03 23:45 G	39767398.42	39767398.49	39767398.56	0.1634	0.1265
Mercury	104174-10-19 08:23 G	39770123.80	39770123.85	39770123.91	0.1663	0.1441

Mercury	104176-09-23 11:01 G	39770828.86	39770828.96	39770829.06	0.1640	0.0750
Mercury	104185-04-14 12:57 G	39773953.88	39773954.04	39773954.20	0.1899	0.0616
Mercury	104186-02-13 22:33 G	39774259.32	39774259.44	39774259.55	0.1645	0.0231
Venus	104188-06-13 23:01 G	39775110.36	39775110.46	39775110.56	0.1586	0.1272
Mercury	104194-09-04 05:16 G	39777383.58	39777383.72	39777383.86	0.1890	0.1063
Mercury	104195-07-07 09:49 G	39777689.80	39777689.91	39777690.03	0.1651	0.0299
Mercury	104204-11-27 21:06 G	39781120.28	39781120.38	39781120.48	0.1657	0.0834
Mercury	104206-11-02 23:30 G	39781825.42	39781825.48	39781825.55	0.1634	0.1329
Mercury	104214-04-20 08:23 G	39784550.79	39784550.85	39784550.92	0.1663	0.1374
Mercury	104216-03-25 11:01 G	39785255.86	39785255.96	39785256.06	0.1640	0.0816
Venus	104220-06-13 15:21 G	39786796.98	39786797.14	39786797.31	0.1591	0.0531
Venus	104223-03-18 11:30 G	39787804.81	39787804.98	39787805.15	0.1955	0.0517
Mercury	104224-10-14 13:54 G	39788380.93	39788381.08	39788381.24	0.1899	0.0771
Mercury	104225-08-15 22:33 G	39788686.33	39788686.44	39788686.55	0.1645	0.0298
Mercury	104234-03-06 06:28 G	39791810.62	39791810.77	39791810.92	0.1890	0.0900
Mercury	104235-01-06 09:49 G	39792116.79	39792116.91	39792117.02	0.1651	0.0236
Mercury	104244-05-28 21:06 G	39795547.28	39795547.38	39795547.48	0.1656	0.0769
Mercury	104246-05-03 23:30 G	39796252.42	39796252.48	39796252.54	0.1634	0.1393
Mercury	104253-10-19 08:23 G	39798977.78	39798977.85	39798977.92	0.1662	0.1311
Venus	104254-04-12 11:59 G	39799152.93	39799153.00	39799153.08	0.1585	0.1430
Mercury	104255-09-24 11:01 G	39799682.86	39799682.96	39799683.06	0.1639	0.0881
Mercury	104264-04-14 14:52 G	39802807.98	39802808.12	39802808.27	0.1899	0.0933
Mercury	104265-02-13 22:18 G	39803113.32	39803113.43	39803113.55	0.1645	0.0363
Mercury	104273-09-04 06:57 G	39806237.64	39806237.79	39806237.95	0.1890	0.0778
Mercury	104274-07-07 09:49 G	39806543.79	39806543.91	39806544.02	0.1651	0.0165
Mercury	104283-11-27 21:06 G	39809974.27	39809974.38	39809974.48	0.1656	0.0702
Mercury	104285-11-01 23:30 G	39810679.43	39810679.48	39810679.53	0.1634	0.1465
Venus	104286-04-11 04:04 G	39810839.50	39810839.67	39810839.84	0.1589	0.0362
Venus	104289-01-12 13:11 G	39811846.93	39811847.05	39811847.18	0.1957	0.1317
Mercury	104293-04-19 08:23 G	39813404.77	39813404.85	39813404.92	0.1662	0.1247

Mercury	104295-03-25 11:01 G	39814109.86	39814109.96	39814110.05	0.1639	0.0948
Moon	104301-09-05 18:13 G	39816465.07	39816465.26	39816465.44	0.1748	0.0029
Earth	104301-09-05 23:59 G	39816465.31	39816465.50	39816465.69	0.1749	0.0297 *
Mercury	104303-10-15 15:49 G	39817235.02	39817235.16	39817235.30	0.1899	0.1082
Mercury	104304-08-15 22:18 G	39817540.32	39817540.43	39817540.55	0.1645	0.0430
Mercury	104313-03-06 08:23 G	39820664.69	39820664.85	39820665.01	0.1891	0.0602
Mercury	104314-01-06 09:35 G	39820970.79	39820970.90	39820971.02	0.1650	0.0123
Mercury	104323-05-29 21:06 G	39824401.27	39824401.38	39824401.48	0.1656	0.0639
Mercury	104325-05-03 23:30 G	39825106.44	39825106.48	39825106.52	0.1634	0.1527
Mercury	104332-10-19 08:23 G	39827831.77	39827831.85	39827831.93	0.1662	0.1177
Mercury	104334-09-24 11:01 G	39828536.87	39828536.96	39828537.05	0.1639	0.1016
Mercury	104343-04-15 16:47 G	39831662.07	39831662.20	39831662.33	0.1900	0.1236
Mercury	104344-02-14 22:18 G	39831967.32	39831967.43	39831967.54	0.1644	0.0497
Venus	104352-02-07 16:33 G	39834882.01	39834882.19	39834882.36	0.1588	0.0185
Mercury	104352-09-04 09:21 G	39835091.72	39835091.89	39835092.05	0.1891	0.0445
Mercury	104353-07-07 09:35 G	39835397.79	39835397.90	39835398.02	0.1650	0.0059
Mercury	104362-11-27 21:06 G	39838828.27	39838828.38	39838828.48	0.1656	0.0575
Mercury	104364-11-01 23:30 G	39839533.46	39839533.48	39839533.50	0.1634	0.1594
Mercury	104372-04-19 08:23 G	39842258.76	39842258.85	39842258.93	0.1662	0.1118
Mercury	104374-03-25 10:47 G	39842963.87	39842963.95	39842964.04	0.1639	0.1081
Mercury	104381-09-09 19:25 G	39845689.31	39845689.31	39845689.32	0.1668	0.1665
Mercury	104382-10-14 17:45 G	39846089.13	39846089.24	39846089.36	0.1900	0.1401
Mercury	104383-08-15 22:18 G	39846394.32	39846394.43	39846394.54	0.1645	0.0559
Mercury	104392-03-05 10:04 G	39849518.75	39849518.92	39849519.08	0.1891	0.0314
Mercury	104393-01-05 09:35 G	39849824.79	39849824.90	39849825.02	0.1650	0.0070
Earth	104402-03-04 22:04 G	39853170.25	39853170.42	39853170.59	0.1796	0.0839
Moon	104402-03-05 06:13 G	39853170.58	39853170.76	39853170.93	0.1795	0.0768 *
Mercury	104402-05-28 20:52 G	39853255.26	39853255.37	39853255.48	0.1656	0.0510
Mercury	104411-10-19 08:09 G	39856685.76	39856685.84	39856685.93	0.1662	0.1052
Mercury	104413-09-23 10:47 G	39857390.87	39857390.95	39857391.03	0.1639	0.1148

Venus	104417-12-05 05:30 G	39858924.56	39858924.73	39858924.91	0.1586	0.0033
Mercury	104421-03-10 19:25 G	39860116.28	39860116.31	39860116.34	0.1668	0.1602
Mercury	104422-04-14 18:42 G	39860516.18	39860516.28	39860516.38	0.1900	0.1549
Mercury	104423-02-13 22:18 G	39860821.32	39860821.43	39860821.54	0.1644	0.0625
Mercury	104431-09-04 11:01 G	39863945.79	39863945.96	39863946.13	0.1892	0.0147
Mercury	104432-07-06 09:35 G	39864251.78	39864251.90	39864252.02	0.1650	0.0095
Mercury	104441-01-24 03:35 G	39867375.61	39867375.65	39867375.69	0.1882	0.1813
Mercury	104441-11-26 20:52 G	39867682.26	39867682.37	39867682.48	0.1656	0.0442
Mercury	104451-04-19 08:23 G	39871112.75	39871112.85	39871112.94	0.1662	0.0983
Venus	104452-09-06 19:25 G	39871619.20	39871619.31	39871619.43	0.1955	0.1432
Mercury	104453-03-24 10:47 G	39871817.88	39871817.95	39871818.03	0.1639	0.1216
Mercury	104460-09-08 19:25 G	39874543.27	39874543.31	39874543.35	0.1668	0.1535
Mercury	104461-10-13 19:40 G	39874943.25	39874943.32	39874943.39	0.1901	0.1711
Mercury	104462-08-14 22:18 G	39875248.32	39875248.43	39875248.53	0.1644	0.0696
Mercury	104471-03-05 12:13 G	39878372.84	39878373.01	39878373.18	0.1892	0.0021
Mercury	104472-01-05 09:35 G	39878678.78	39878678.90	39878679.01	0.1650	0.0164
Mercury	104480-07-25 04:33 G	39881802.61	39881802.69	39881802.77	0.1883	0.1665
Mercury	104481-05-27 20:52 G	39882109.26	39882109.37	39882109.48	0.1656	0.0375
Venus	104483-10-02 17:59 G	39882967.07	39882967.25	39882967.42	0.1585	0.0151
Mercury	104490-10-18 08:09 G	39885539.75	39885539.84	39885539.94	0.1662	0.0919
Mercury	104492-09-22 10:47 G	39886244.88	39886244.95	39886245.02	0.1639	0.1281
Mercury	104500-03-10 19:25 G	39888970.26	39888970.31	39888970.36	0.1668	0.1469
Mercury	104501-04-14 20:37 G	39889370.33	39889370.36	39889370.39	0.1901	0.1867
Mercury	104502-02-13 22:04 G	39889675.32	39889675.42	39889675.53	0.1644	0.0761
Earth	104506-09-05 00:57 G	39891339.52	39891339.54	39891339.56	0.1734	0.1717
Moon	104506-09-05 07:25 G	39891339.80	39891339.81	39891339.81	0.1735	0.1731
Mercury	104510-09-04 12:42 G	39892799.86	39892800.03	39892800.20	0.1892	0.0150
Mercury	104511-07-07 09:35 G	39893105.78	39893105.90	39893106.01	0.1650	0.0233
Venus	104518-07-05 21:49 G	39895661.25	39895661.41	39895661.58	0.1957	0.0662
Mercury	104520-01-25 05:45 G	39896229.64	39896229.74	39896229.84	0.1883	0.1494

Mercury	104520-11-26 20:52 G	39896536.26	39896536.37	39896536.48	0.1655	0.0307
Mercury	104530-04-19 08:09 G	39899966.74	39899966.84	39899966.94	0.1661	0.0854
Mercury	104532-03-24 10:47 G	39900671.88	39900671.95	39900672.01	0.1639	0.1348
Mercury	104539-09-09 19:25 G	39903397.25	39903397.31	39903397.37	0.1668	0.1405
Mercury	104541-08-14 22:04 G	39904102.32	39904102.42	39904102.52	0.1644	0.0829
Venus	104549-07-31 06:57 G	39907009.62	39907009.79	39907009.96	0.1584	0.0307
Mercury	104550-03-05 14:09 G	39907226.92	39907227.09	39907227.25	0.1892	0.0331
Mercury	104551-01-05 09:35 G	39907532.78	39907532.90	39907533.01	0.1650	0.0303
Mercury	104559-07-26 06:28 G	39910656.65	39910656.77	39910656.88	0.1883	0.1363
Mercury	104560-05-27 20:52 G	39910963.25	39910963.37	39910963.48	0.1656	0.0242
Mercury	104569-10-18 08:09 G	39914393.74	39914393.84	39914393.94	0.1661	0.0783
Mercury	104571-09-23 10:47 G	39915098.89	39915098.95	39915099.00	0.1639	0.1418
Mercury	104579-03-10 19:11 G	39917824.24	39917824.30	39917824.37	0.1667	0.1340
Mercury	104581-02-12 22:04 G	39918529.33	39918529.42	39918529.52	0.1644	0.0896
Venus	104581-07-29 22:47 G	39918696.39	39918696.45	39918696.51	0.1588	0.1488
Venus	104584-05-01 23:45 G	39919703.32	39919703.49	39919703.66	0.1959	0.0138
Earth	104585-09-07 13:40 G	39920196.90	39920197.07	39920197.25	0.1740	0.0676
Moon	104585-09-07 21:21 G	39920197.20	39920197.39	39920197.57	0.1741	0.0553 *
Mercury	104589-09-03 15:06 G	39921653.96	39921654.13	39921654.29	0.1892	0.0485
Mercury	104590-07-06 09:21 G	39921959.78	39921959.89	39921960.01	0.1649	0.0365
Mercury	104599-01-24 07:25 G	39925083.68	39925083.81	39925083.94	0.1883	0.1202
Mercury	104599-11-26 20:52 G	39925390.25	39925390.37	39925390.48	0.1655	0.0179
Mercury	104609-04-19 08:09 G	39928820.73	39928820.84	39928820.94	0.1661	0.0724
Mercury	104611-03-25 10:33 G	39929525.90	39929525.94	39929525.99	0.1638	0.1485
Venus	104615-05-29 19:25 G	39931052.15	39931052.31	39931052.48	0.1583	0.0475
Mercury	104618-09-09 19:25 G	39932251.23	39932251.31	39932251.38	0.1667	0.1271
Mercury	104620-08-14 22:04 G	39932956.33	39932956.42	39932956.51	0.1644	0.0962
Mercury	104629-03-05 15:35 G	39936080.99	39936081.15	39936081.31	0.1893	0.0624
Mercury	104630-01-05 09:21 G	39936386.78	39936386.89	39936387.01	0.1649	0.0436
Mercury	104638-07-26 08:37 G	39939510.72	39939510.86	39939511.00	0.1884	0.1040

Mercury	104639-05-28 20:52 G	39939817.25	39939817.37	39939817.48	0.1655	0.0127
Venus	104647-05-28 11:45 G	39942738.89	39942738.99	39942739.08	0.1587	0.1323
Mercury	104648-10-18 07:54 G	39943247.73	39943247.83	39943247.94	0.1661	0.0656
Venus	104650-02-28 02:23 G	39943745.44	39943745.60	39943745.75	0.1961	0.0900
Mercury	104650-09-23 10:33 G	39943952.91	39943952.94	39943952.98	0.1638	0.1553
Mercury	104658-03-10 19:11 G	39946678.22	39946678.30	39946678.38	0.1667	0.1207
Mercury	104660-02-13 22:04 G	39947383.33	39947383.42	39947383.51	0.1644	0.1028
Mercury	104668-09-03 16:47 G	39950508.05	39950508.20	39950508.36	0.1893	0.0794
Mercury	104669-07-06 09:21 G	39950813.78	39950813.89	39950814.00	0.1649	0.0497
Mercury	104678-01-24 09:21 G	39953937.74	39953937.89	39953938.04	0.1884	0.0898
Mercury	104678-11-26 20:37 G	39954244.25	39954244.36	39954244.48	0.1655	0.0071
Venus	104681-03-26 08:23 G	39955094.69	39955094.85	39955095.01	0.1582	0.0634
Moon	104686-03-06 19:40 G	39956901.14	39956901.32	39956901.50	0.1806	0.0577
Earth	104686-03-07 03:06 G	39956901.47	39956901.63	39956901.80	0.1806	0.0917 *
Mercury	104688-04-18 08:09 G	39957674.73	39957674.84	39957674.94	0.1661	0.0587
Mercury	104690-03-24 10:33 G	39958379.93	39958379.94	39958379.96	0.1638	0.1622
Mercury	104697-09-08 19:11 G	39961105.22	39961105.30	39961105.38	0.1667	0.1140
Mercury	104699-08-14 22:04 G	39961810.33	39961810.42	39961810.50	0.1643	0.1099
Mercury	104708-03-05 17:59 G	39964935.10	39964935.25	39964935.39	0.1893	0.0957
Mercury	104709-01-05 09:21 G	39965240.78	39965240.89	39965241.00	0.1649	0.0565
Venus	104713-03-26 00:13 G	39966781.39	39966781.51	39966781.63	0.1586	0.1153
Venus	104715-12-27 03:35 G	39967787.58	39967787.65	39967787.74	0.1962	0.1729
Mercury	104717-07-26 10:18 G	39968364.77	39968364.93	39968365.09	0.1884	0.0743
Mercury	104718-05-28 20:37 G	39968671.25	39968671.36	39968671.48	0.1655	0.0043
Mercury	104727-10-19 07:54 G	39972101.72	39972101.83	39972101.94	0.1661	0.0520
Mercury	104737-03-10 19:11 G	39975532.21	39975532.30	39975532.39	0.1667	0.1071
Mercury	104739-02-13 21:49 G	39976237.33	39976237.41	39976237.49	0.1644	0.1165
Mercury	104746-08-01 06:28 G	39978962.75	39978962.77	39978962.79	0.1673	0.1633
Venus	104747-01-22 21:06 G	39979137.23	39979137.38	39979137.53	0.1581	0.0800
Mercury	104747-09-04 18:28 G	39979362.13	39979362.27	39979362.41	0.1893	0.1090

Mercury	104748-07-06 09:21 G	39979667.78	39979667.89	39979668.00	0.1649	0.0636
Mercury	104757-01-24 11:30 G	39982791.82	39982791.98	39982792.14	0.1885	0.0570
Mercury	104757-11-26 20:37 G	39983098.24	39983098.36	39983098.48	0.1655	0.0094
Mercury	104767-04-19 07:54 G	39986528.72	39986528.83	39986528.94	0.1661	0.0454
Mercury	104776-09-08 19:11 G	39989959.21	39989959.30	39989959.39	0.1667	0.1008
Mercury	104778-08-14 21:49 G	39990664.34	39990664.41	39990664.49	0.1643	0.1234
Venus	104779-01-21 12:57 G	39990823.90	39990824.04	39990824.18	0.1585	0.0982
Mercury	104786-01-30 06:13 G	39993389.73	39993389.76	39993389.80	0.1673	0.1570
Mercury	104787-03-05 19:40 G	39993789.20	39993789.32	39993789.45	0.1894	0.1274
Mercury	104788-01-05 09:06 G	39994094.78	39994094.88	39994094.99	0.1649	0.0703
Moon	104790-09-07 09:49 G	39995070.76	39995070.91	39995071.05	0.1725	0.1153
Earth	104790-09-07 16:18 G	39995071.05	39995071.18	39995071.31	0.1726	0.1266 *
Mercury	104796-07-25 11:59 G	39997218.84	39997219.00	39997219.17	0.1884	0.0444
Mercury	104797-05-27 20:37 G	39997525.24	39997525.36	39997525.47	0.1655	0.0163
Mercury	104806-10-18 07:54 G	40000955.72	40000955.83	40000955.94	0.1660	0.0383
Venus	104812-11-19 10:04 G	40003179.78	40003179.92	40003180.06	0.1580	0.0960
Venus	104813-10-23 08:37 G	40003517.81	40003517.86	40003517.91	0.1958	0.1855
Mercury	104816-03-09 18:57 G	40004386.20	40004386.29	40004386.39	0.1667	0.0942
Mercury	104818-02-12 21:49 G	40005091.34	40005091.41	40005091.48	0.1643	0.1302
Mercury	104825-07-31 06:13 G	40007816.72	40007816.76	40007816.81	0.1673	0.1502
Mercury	104826-09-03 20:37 G	40008216.25	40008216.36	40008216.47	0.1894	0.1422
Mercury	104827-07-06 09:06 G	40008521.78	40008521.88	40008521.98	0.1649	0.0769
Mercury	104836-01-24 13:11 G	40011645.88	40011646.05	40011646.22	0.1885	0.0272
Mercury	104836-11-25 20:37 G	40011952.24	40011952.36	40011952.47	0.1654	0.0233
Venus	104844-11-18 01:54 G	40014866.43	40014866.58	40014866.73	0.1583	0.0819
Mercury	104846-04-18 07:40 G	40015382.71	40015382.82	40015382.94	0.1661	0.0325
Mercury	104855-09-08 19:11 G	40018813.20	40018813.30	40018813.39	0.1666	0.0871
Mercury	104857-08-13 21:49 G	40019518.35	40019518.41	40019518.47	0.1643	0.1370
Mercury	104865-01-29 06:13 G	40022243.70	40022243.76	40022243.82	0.1673	0.1435
Mercury	104866-03-04 21:21 G	40022643.30	40022643.39	40022643.49	0.1894	0.1570

Mercury	104867-01-04 09:06 G	40022948.79	40022948.88	40022948.98	0.1649	0.0841
Moon	104869-09-09 20:52 G	40023928.22	40023928.37	40023928.53	0.1732	0.0975
Earth	104869-09-10 04:18 G	40023928.53	40023928.68	40023928.83	0.1732	0.1068 *
Mercury	104875-07-25 14:09 G	40026072.92	40026073.09	40026073.26	0.1885	0.0117
Mercury	104876-05-26 20:23 G	40026379.24	40026379.35	40026379.47	0.1654	0.0302
Venus	104878-09-16 22:47 G	40027222.33	40027222.45	40027222.57	0.1579	0.1127
Venus	104879-08-20 10:04 G	40027559.78	40027559.92	40027560.07	0.1960	0.1045
Mercury	104884-12-14 06:57 G	40029502.74	40029502.79	40029502.84	0.1876	0.1779
Mercury	104885-10-17 07:40 G	40029809.71	40029809.82	40029809.94	0.1660	0.0255
Moon	104891-03-05 14:52 G	40031775.08	40031775.12	40031775.17	0.1823	0.1754
Mercury	104895-03-09 18:57 G	40033240.19	40033240.29	40033240.39	0.1666	0.0807
Mercury	104897-02-11 21:49 G	40033945.35	40033945.41	40033945.46	0.1643	0.1437
Mercury	104904-07-31 06:13 G	40036670.70	40036670.76	40036670.82	0.1673	0.1367
Mercury	104905-09-03 22:33 G	40037070.38	40037070.44	40037070.50	0.1894	0.1742
Mercury	104906-07-06 09:06 G	40037375.78	40037375.88	40037375.98	0.1649	0.0904
Venus	104910-09-16 14:09 G	40038908.93	40038909.09	40038909.25	0.1582	0.0643
Mercury	104915-01-24 14:52 G	40040499.95	40040500.12	40040500.29	0.1885	0.0048
Mercury	104915-11-26 20:23 G	40040806.24	40040806.35	40040806.47	0.1654	0.0373
Mercury	104924-06-15 07:40 G	40043929.74	40043929.82	40043929.90	0.1876	0.1633
Mercury	104925-04-18 07:40 G	40044236.71	40044236.82	40044236.94	0.1660	0.0184
Mercury	104934-09-08 18:57 G	40047667.19	40047667.29	40047667.39	0.1666	0.0738
Mercury	104936-08-13 21:49 G	40048372.36	40048372.41	40048372.45	0.1643	0.1509
Mercury	104944-01-30 06:13 G	40051097.69	40051097.76	40051097.83	0.1673	0.1303
Venus	104944-07-15 11:30 G	40051264.89	40051264.98	40051265.08	0.1579	0.1293
Venus	104945-06-17 12:28 G	40051601.85	40051602.02	40051602.19	0.1962	0.0256
Mercury	104946-01-04 09:06 G	40051802.79	40051802.88	40051802.97	0.1648	0.0973
Mercury	104954-07-25 15:49 G	40054927.00	40054927.16	40054927.33	0.1886	0.0198
Mercury	104955-05-27 20:23 G	40055233.24	40055233.35	40055233.46	0.1654	0.0433
Mercury	104963-12-15 08:52 G	40058356.76	40058356.87	40058356.97	0.1876	0.1469
Mercury	104964-10-17 07:40 G	40058663.70	40058663.82	40058663.93	0.1660	0.0116

Earth	104970-03-09 06:13 G	40060632.59	40060632.76	40060632.92	0.1815	0.0899
Moon	104970-03-09 14:37 G	40060632.97	40060633.11	40060633.25	0.1815	0.1233
Mercury	104974-03-09 18:57 G	40062094.18	40062094.29	40062094.40	0.1666	0.0667
Mercury	104976-02-12 21:35 G	40062799.37	40062799.40	40062799.43	0.1643	0.1575
Venus	104976-07-14 03:21 G	40062951.47	40062951.64	40062951.80	0.1581	0.0485
Mercury	104983-07-31 06:13 G	40065524.68	40065524.76	40065524.83	0.1672	0.1233
Mercury	104985-07-05 09:06 G	40066229.79	40066229.88	40066229.97	0.1648	0.1045
Mercury	104994-01-23 17:01 G	40069354.05	40069354.21	40069354.38	0.1886	0.0368
Mercury	104994-11-25 20:23 G	40069660.24	40069660.35	40069660.46	0.1654	0.0502

106TH MILLENNIUM CE

This is a list of transits visible from Mars in the 106th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	105003-06-16 09:35 G	40072783.78	40072783.90	40072784.02	0.1877	0.1326		
Mercury	105004-04-18 07:40 G	40073090.70	40073090.82	40073090.93	0.1660	0.0067		
Venus	105010-05-14 00:42 G	40075307.46	40075307.53	40075307.59	0.1578	0.1450		
Venus	105011-04-15 13:54 G	40075643.91	40075644.08	40075644.24	0.1964	0.0569		
Mercury	105013-09-08 18:57 G	40076521.18	40076521.29	40076521.39	0.1666	0.0604		
Mercury	105023-01-30 05:59 G	40079951.67	40079951.75	40079951.83	0.1672	0.1168		
Mercury	105025-01-04 08:52 G	40080656.79	40080656.87	40080656.96	0.1648	0.1111		
Mercury	105033-07-25 17:30 G	40083781.07	40083781.23	40083781.40	0.1886	0.0496		
Mercury	105034-05-27 20:23 G	40084087.24	40084087.35	40084087.46	0.1654	0.0572		
Venus	105042-05-12 15:49 G	40086993.99	40086994.16	40086994.34	0.1580	0.0315		

Mercury	105042-12-15 10:33 G	40087210.81	40087210.94	40087211.08	0.1877	0.1165
Mercury	105043-10-18 07:40 G	40087517.70	40087517.82	40087517.93	0.1660	0.0048
Mercury	105053-03-09 18:42 G	40090948.17	40090948.28	40090948.39	0.1666	0.0537
Mercury	105062-07-31 05:59 G	40094378.67	40094378.75	40094378.84	0.1672	0.1099
Mercury	105064-07-05 08:52 G	40095083.79	40095083.87	40095083.95	0.1648	0.1179
Mercury	105071-12-21 17:01 G	40097809.21	40097809.21	40097809.21	0.1679	0.1675
Mercury	105073-01-23 18:42 G	40098208.13	40098208.28	40098208.44	0.1886	0.0672
Mercury	105073-11-25 20:23 G	40098514.24	40098514.35	40098514.45	0.1654	0.0642
Earth	105074-09-10 07:40 G	40098802.65	40098802.82	40098802.99	0.1718	0.0820
Moon	105074-09-10 11:16 G	40098802.80	40098802.97	40098803.15	0.1718	0.0534 *
Venus	105077-02-09 16:18 G	40099686.06	40099686.18	40099686.30	0.1965	0.1351
Mercury	105082-06-15 11:30 G	40101637.84	40101637.98	40101638.12	0.1877	0.1012
Mercury	105083-04-18 07:25 G	40101944.70	40101944.81	40101944.93	0.1660	0.0095
Mercury	105092-09-07 18:57 G	40105375.17	40105375.29	40105375.40	0.1666	0.0467
Mercury	105102-01-30 05:59 G	40108805.66	40108805.75	40108805.84	0.1672	0.1032
Mercury	105104-01-05 08:52 G	40109510.80	40109510.87	40109510.95	0.1648	0.1252
Venus	105108-03-10 04:33 G	40111036.52	40111036.69	40111036.87	0.1580	0.0156
Mercury	105111-06-22 17:01 G	40112236.18	40112236.21	40112236.24	0.1679	0.1607
Mercury	105112-07-25 19:54 G	40112635.17	40112635.33	40112635.48	0.1887	0.0836
Mercury	105113-05-27 20:09 G	40112941.24	40112941.34	40112941.45	0.1654	0.0708
Mercury	105121-12-15 12:28 G	40116064.87	40116065.02	40116065.17	0.1877	0.0860
Mercury	105122-10-18 07:25 G	40116371.70	40116371.81	40116371.93	0.1659	0.0159
Mercury	105132-03-09 18:42 G	40119802.17	40119802.28	40119802.39	0.1666	0.0399
Mercury	105141-07-31 05:59 G	40123232.65	40123232.75	40123232.84	0.1672	0.0962
Mercury	105143-07-06 08:52 G	40123937.80	40123937.87	40123937.94	0.1648	0.1317
Mercury	105150-12-21 17:01 G	40126663.17	40126663.21	40126663.25	0.1678	0.1535
Mercury	105152-01-24 20:23 G	40127062.21	40127062.35	40127062.50	0.1887	0.0971
Mercury	105152-11-25 20:09 G	40127368.24	40127368.34	40127368.44	0.1654	0.0779
Earth	105153-09-13 18:57 G	40127660.19	40127660.29	40127660.39	0.1724	0.1459
Mercury	105161-06-15 13:25 G	40130491.90	40130492.06	40130492.21	0.1878	0.0704

Mercury	105162-04-18 07:25 G	40130798.70	40130798.81	40130798.92	0.1659	0.0229
Mercury	105171-09-08 18:42 G	40134229.17	40134229.28	40134229.39	0.1665	0.0330
Venus	105174-01-05 17:30 G	40135079.05	40135079.23	40135079.41	0.1579	0.0021
Mercury	105181-01-29 05:59 G	40137659.65	40137659.75	40137659.84	0.1672	0.0898
Mercury	105183-01-04 08:52 G	40138364.81	40138364.87	40138364.93	0.1648	0.1388
Mercury	105190-06-21 16:47 G	40141090.15	40141090.20	40141090.26	0.1678	0.1474
Mercury	105191-07-25 21:21 G	40141489.26	40141489.39	40141489.53	0.1887	0.1142
Mercury	105192-05-26 20:09 G	40141795.24	40141795.34	40141795.44	0.1653	0.0845
Mercury	105200-12-14 14:23 G	40144918.94	40144919.10	40144919.26	0.1878	0.0543
Mercury	105201-10-17 07:25 G	40145225.69	40145225.81	40145225.92	0.1659	0.0301
Mercury	105211-03-09 18:42 G	40148656.17	40148656.28	40148656.39	0.1665	0.0257
Mercury	105220-07-30 05:45 G	40152086.64	40152086.74	40152086.84	0.1672	0.0826
Mercury	105222-07-05 08:52 G	40152791.82	40152791.87	40152791.92	0.1647	0.1459
Mercury	105229-12-20 16:47 G	40155517.14	40155517.20	40155517.27	0.1678	0.1405
Mercury	105231-01-23 22:33 G	40155916.32	40155916.44	40155916.56	0.1887	0.1316
Mercury	105231-11-25 19:54 G	40156222.24	40156222.33	40156222.43	0.1653	0.0917
Venus	105239-11-03 06:13 G	40159121.59	40159121.76	40159121.94	0.1578	0.0180
Mercury	105240-06-14 15:06 G	40159345.96	40159346.13	40159346.30	0.1878	0.0396
Venus	105240-10-04 22:33 G	40159458.32	40159458.44	40159458.55	0.1963	0.1423
Mercury	105241-04-17 07:25 G	40159652.69	40159652.81	40159652.92	0.1659	0.0371
Mercury	105250-09-07 18:28 G	40163083.16	40163083.27	40163083.39	0.1665	0.0201
Moon	105254-03-10 23:16 G	40164363.30	40164363.47	40164363.64	0.1826	0.0860
Earth	105254-03-11 07:25 G	40164363.64	40164363.81	40164363.99	0.1825	0.0805 *
Mercury	105260-01-29 05:45 G	40166513.64	40166513.74	40166513.84	0.1672	0.0758
Mercury	105262-01-03 08:37 G	40167218.82	40167218.86	40167218.90	0.1647	0.1525
Mercury	105269-06-20 16:47 G	40169944.14	40169944.20	40169944.27	0.1678	0.1333
Mercury	105270-07-24 23:01 G	40170343.36	40170343.46	40170343.57	0.1887	0.1443
Mercury	105271-05-26 19:54 G	40170649.24	40170649.33	40170649.43	0.1653	0.0990
Mercury	105279-12-14 16:18 G	40173773.01	40173773.18	40173773.35	0.1879	0.0230
Mercury	105280-10-16 07:11 G	40174079.69	40174079.80	40174079.92	0.1659	0.0441

Mercury	105290-03-08 18:28 G	40177510.16	40177510.27	40177510.39	0.1665	0.0127
Mercury	105299-07-30 05:45 G	40180940.63	40180940.74	40180940.84	0.1671	0.0689
Mercury	105301-07-05 08:37 G	40181645.84	40181645.86	40181645.89	0.1647	0.1595
Venus	105305-08-31 18:57 G	40183164.12	40183164.29	40183164.47	0.1577	0.0345
Venus	105306-08-02 23:45 G	40183500.33	40183500.49	40183500.66	0.1965	0.0591
Mercury	105308-12-20 16:47 G	40184371.13	40184371.20	40184371.27	0.1678	0.1267
Mercury	105310-01-24 00:13 G	40184770.43	40184770.51	40184770.60	0.1888	0.1627
Mercury	105310-11-25 19:54 G	40185076.24	40185076.33	40185076.42	0.1653	0.1055
Mercury	105319-06-15 17:01 G	40188200.04	40188200.21	40188200.38	0.1878	0.0080
Mercury	105320-04-17 07:11 G	40188506.69	40188506.80	40188506.91	0.1659	0.0504
Mercury	105328-11-04 09:49 G	40191629.86	40191629.91	40191629.97	0.1869	0.1750
Mercury	105329-09-07 18:28 G	40191937.16	40191937.27	40191937.39	0.1665	0.0071
Venus	105337-08-30 10:18 G	40194850.86	40194850.93	40194851.01	0.1580	0.1425
Mercury	105339-01-29 05:45 G	40195367.63	40195367.74	40195367.84	0.1671	0.0624
Mercury	105348-06-20 16:47 G	40198798.12	40198798.20	40198798.28	0.1678	0.1198
Mercury	105349-07-25 01:11 G	40199197.50	40199197.55	40199197.61	0.1888	0.1789
Mercury	105350-05-26 19:54 G	40199503.24	40199503.33	40199503.41	0.1653	0.1123
Moon	105358-09-12 20:37 G	40202534.16	40202534.36	40202534.55	0.1710	0.0501
Earth	105358-09-13 00:13 G	40202534.32	40202534.51	40202534.69	0.1710	0.0355 *
Mercury	105358-12-14 17:59 G	40202627.08	40202627.25	40202627.42	0.1879	0.0082
Mercury	105359-10-17 07:11 G	40202933.69	40202933.80	40202933.91	0.1659	0.0574
Mercury	105368-05-05 11:01 G	40206056.87	40206056.96	40206057.05	0.1870	0.1578
Mercury	105369-03-08 18:28 G	40206364.15	40206364.27	40206364.38	0.1665	0.0035
Venus	105371-06-29 07:54 G	40207206.66	40207206.83	40207207.00	0.1577	0.0509
Venus	105372-05-30 01:54 G	40207542.41	40207542.58	40207542.75	0.1966	0.0220
Mercury	105378-07-30 05:45 G	40209794.63	40209794.74	40209794.84	0.1671	0.0552
Mercury	105387-12-20 16:47 G	40213225.11	40213225.20	40213225.28	0.1677	0.1125
Mercury	105389-11-24 19:54 G	40213930.25	40213930.33	40213930.41	0.1653	0.1197
Mercury	105398-06-14 18:57 G	40217054.12	40217054.29	40217054.46	0.1879	0.0243
Mercury	105399-04-17 07:11 G	40217360.69	40217360.80	40217360.90	0.1658	0.0646

Venus	105403-06-28 23:30 G	40218893.37	40218893.48	40218893.58	0.1579	0.1265
Mercury	105407-11-05 11:59 G	40220483.89	40220484.00	40220484.11	0.1870	0.1421
Mercury	105408-09-07 18:28 G	40220791.15	40220791.27	40220791.38	0.1665	0.0096
Mercury	105418-01-29 05:30 G	40224221.62	40224221.73	40224221.84	0.1671	0.0483
Mercury	105427-06-21 16:33 G	40227652.11	40227652.19	40227652.28	0.1678	0.1062
Mercury	105429-05-26 19:40 G	40228357.25	40228357.32	40228357.40	0.1653	0.1265
Mercury	105436-11-11 03:49 G	40231082.64	40231082.66	40231082.68	0.1684	0.1642
Venus	105437-04-26 20:52 G	40231249.21	40231249.37	40231249.53	0.1576	0.0671
Mercury	105437-12-14 19:54 G	40231481.16	40231481.33	40231481.49	0.1879	0.0401
Venus	105438-03-28 03:21 G	40231584.49	40231584.64	40231584.78	0.1967	0.1058
Mercury	105438-10-17 06:57 G	40231787.69	40231787.79	40231787.90	0.1659	0.0719
Mercury	105447-05-06 12:28 G	40234910.90	40234911.02	40234911.15	0.1870	0.1289
Mercury	105448-03-08 18:28 G	40235218.15	40235218.27	40235218.38	0.1664	0.0166
Mercury	105457-07-30 05:30 G	40238648.62	40238648.73	40238648.84	0.1671	0.0411
Mercury	105466-12-20 16:33 G	40242079.10	40242079.19	40242079.29	0.1677	0.0991
Mercury	105468-11-24 19:40 G	40242784.26	40242784.32	40242784.39	0.1652	0.1335
Venus	105469-04-25 11:59 G	40242935.88	40242936.00	40242936.13	0.1578	0.1095
Mercury	105476-05-12 03:35 G	40245509.62	40245509.65	40245509.69	0.1684	0.1579
Mercury	105477-06-14 20:37 G	40245908.20	40245908.36	40245908.52	0.1879	0.0552
Mercury	105478-04-17 06:57 G	40246214.69	40246214.79	40246214.89	0.1658	0.0786
Mercury	105486-11-04 13:40 G	40249337.94	40249338.07	40249338.21	0.1870	0.1111
Mercury	105487-09-07 18:13 G	40249645.15	40249645.26	40249645.38	0.1664	0.0228
Mercury	105497-01-28 05:30 G	40253075.61	40253075.73	40253075.84	0.1671	0.0342
Venus	105503-02-23 09:21 G	40255291.74	40255291.89	40255292.04	0.1576	0.0844
Venus	105504-01-24 05:30 G	40255626.68	40255626.73	40255626.79	0.1968	0.1854
Mercury	105506-06-21 16:33 G	40256506.10	40256506.19	40256506.29	0.1677	0.0918
Mercury	105508-05-26 19:40 G	40257211.26	40257211.32	40257211.38	0.1652	0.1409
Mercury	105515-11-12 03:35 G	40259936.60	40259936.65	40259936.70	0.1684	0.1507
Mercury	105516-12-14 21:49 G	40260335.25	40260335.41	40260335.56	0.1880	0.0727
Mercury	105517-10-17 06:57 G	40260641.69	40260641.79	40260641.89	0.1658	0.0857

Mercury	105526-05-06 14:37 G	40263764.97	40263765.11	40263765.26	0.1870	0.0958
Mercury	105527-03-09 18:13 G	40264072.15	40264072.26	40264072.37	0.1664	0.0296
Venus	105535-02-22 00:42 G	40266978.39	40266978.53	40266978.68	0.1578	0.0932
Mercury	105536-07-30 05:30 G	40267502.61	40267502.73	40267502.84	0.1671	0.0276
Earth	105538-03-14 06:28 G	40268094.59	40268094.77	40268094.95	0.1836	0.0621
Moon	105538-03-14 14:23 G	40268094.93	40268095.10	40268095.27	0.1835	0.0804 *
Mercury	105545-12-20 16:33 G	40270933.09	40270933.19	40270933.29	0.1677	0.0851
Mercury	105547-11-25 19:40 G	40271638.27	40271638.32	40271638.37	0.1652	0.1476
Mercury	105555-05-13 03:35 G	40274363.60	40274363.65	40274363.71	0.1684	0.1435
Mercury	105556-06-14 22:33 G	40274762.29	40274762.44	40274762.59	0.1880	0.0873
Mercury	105557-04-17 06:57 G	40275068.69	40275068.79	40275068.88	0.1658	0.0926
Mercury	105565-11-04 15:21 G	40278191.99	40278192.14	40278192.29	0.1871	0.0813
Mercury	105566-09-07 18:13 G	40278499.15	40278499.26	40278499.37	0.1664	0.0372
Venus	105568-12-20 22:33 G	40279334.31	40279334.44	40279334.58	0.1575	0.0998
Mercury	105576-01-29 05:16 G	40281929.61	40281929.72	40281929.84	0.1670	0.0205
Mercury	105585-06-20 16:33 G	40285360.09	40285360.19	40285360.29	0.1677	0.0781
Mercury	105587-05-26 19:40 G	40286065.28	40286065.32	40286065.35	0.1652	0.1548
Mercury	105594-11-11 03:35 G	40288790.58	40288790.65	40288790.71	0.1684	0.1368
Mercury	105595-12-14 23:30 G	40289189.34	40289189.48	40289189.62	0.1880	0.1038
Mercury	105596-10-16 06:57 G	40289495.70	40289495.79	40289495.88	0.1658	0.0998
Venus	105600-12-19 13:40 G	40291020.92	40291021.07	40291021.23	0.1577	0.0768
Venus	105601-11-20 10:18 G	40291356.86	40291356.93	40291357.00	0.1966	0.1774
Mercury	105605-05-05 16:33 G	40292619.03	40292619.19	40292619.35	0.1871	0.0638
Mercury	105606-03-08 18:13 G	40292926.14	40292926.26	40292926.37	0.1664	0.0441
Mercury	105615-07-30 05:16 G	40296356.61	40296356.72	40296356.84	0.1670	0.0133
Mercury	105624-12-19 16:33 G	40299787.08	40299787.19	40299787.29	0.1677	0.0707
Mercury	105626-11-24 19:40 G	40300492.30	40300492.32	40300492.33	0.1652	0.1623
Mercury	105634-05-12 03:35 G	40303217.57	40303217.65	40303217.72	0.1683	0.1299
Venus	105634-10-18 11:01 G	40303376.85	40303376.96	40303377.08	0.1575	0.1169
Mercury	105635-06-15 00:28 G	40303616.39	40303616.52	40303616.65	0.1881	0.1209

Mercury	105636-04-16 06:57 G	40303922.70	40303922.79	40303922.87	0.1658	0.1071
Earth	105642-09-15 17:59 G	40306266.06	40306266.25	40306266.44	0.1703	0.0141
Moon	105642-09-15 21:21 G	40306266.22	40306266.39	40306266.57	0.1703	0.0048 *
Mercury	105644-11-03 17:30 G	40307046.06	40307046.23	40307046.39	0.1871	0.0482
Mercury	105645-09-06 17:59 G	40307353.14	40307353.25	40307353.36	0.1664	0.0512
Mercury	105655-01-28 05:16 G	40310783.60	40310783.72	40310783.83	0.1670	0.0061
Mercury	105664-06-19 16:18 G	40314214.08	40314214.18	40314214.29	0.1677	0.0641
Venus	105666-10-17 02:37 G	40315063.45	40315063.61	40315063.77	0.1576	0.0604
Venus	105667-09-17 11:59 G	40315398.85	40315399.00	40315399.15	0.1967	0.0945
Mercury	105673-11-10 03:35 G	40317644.57	40317644.65	40317644.73	0.1683	0.1222
Mercury	105674-12-14 01:25 G	40318043.44	40318043.56	40318043.67	0.1881	0.1362
Mercury	105675-10-16 06:42 G	40318349.70	40318349.78	40318349.87	0.1658	0.1143
Mercury	105684-05-04 18:13 G	40321473.09	40321473.26	40321473.42	0.1872	0.0343
Mercury	105685-03-07 17:59 G	40321780.15	40321780.25	40321780.36	0.1664	0.0587
Mercury	105694-07-29 05:16 G	40325210.60	40325210.72	40325210.83	0.1670	0.0047
Venus	105700-08-16 00:13 G	40327419.41	40327419.51	40327419.60	0.1574	0.1326
Mercury	105703-12-20 16:18 G	40328641.07	40328641.18	40328641.29	0.1677	0.0569
Mercury	105713-05-12 03:21 G	40332071.56	40332071.64	40332071.72	0.1683	0.1158
Mercury	105714-06-15 02:09 G	40332470.49	40332470.59	40332470.69	0.1881	0.1519
Mercury	105715-04-17 06:42 G	40332776.71	40332776.78	40332776.86	0.1658	0.1212
Mercury	105723-11-04 19:25 G	40335900.14	40335900.31	40335900.48	0.1872	0.0163
Mercury	105724-09-06 17:59 G	40336207.14	40336207.25	40336207.36	0.1664	0.0652
Venus	105732-08-14 15:35 G	40339105.98	40339106.15	40339106.32	0.1576	0.0441
Mercury	105733-03-26 12:13 G	40339329.99	40339330.01	40339330.04	0.1862	0.1836
Venus	105733-07-15 13:25 G	40339440.89	40339441.06	40339441.23	0.1968	0.0104
Mercury	105734-01-28 05:16 G	40339637.60	40339637.72	40339637.83	0.1670	0.0095
Mercury	105743-06-20 16:18 G	40343068.07	40343068.18	40343068.29	0.1676	0.0495
Mercury	105752-11-10 03:21 G	40346498.55	40346498.64	40346498.73	0.1683	0.1085
Mercury	105753-12-14 03:21 G	40346897.57	40346897.64	40346897.71	0.1882	0.1703
Mercury	105754-10-16 06:42 G	40347203.71	40347203.78	40347203.85	0.1657	0.1285

Mercury	105762-04-02 14:23 G	40349929.09	40349929.10	40349929.11	0.1690	0.1683
Mercury	105763-05-05 20:09 G	40350327.17	40350327.34	40350327.51	0.1872	0.0023
Mercury	105764-03-07 17:59 G	40350634.14	40350634.25	40350634.35	0.1664	0.0724
Venus	105766-06-13 12:57 G	40351461.99	40351462.04	40351462.09	0.1574	0.1491
Mercury	105772-09-24 13:11 G	40353756.98	40353757.05	40353757.13	0.1863	0.1669
Mercury	105773-07-29 05:01 G	40354064.60	40354064.71	40354064.83	0.1670	0.0166
Mercury	105782-12-19 16:18 G	40357495.07	40357495.18	40357495.29	0.1676	0.0425
Mercury	105792-05-11 03:20 G	40360925.55	40360925.64	40360925.73	0.1683	0.1010
Mercury	105793-06-14 04:04 G	40361324.64	40361324.67	40361324.70	0.1881	0.1847
Mercury	105794-04-16 06:42 G	40361630.71	40361630.78	40361630.84	0.1657	0.1357
Venus	105798-06-12 04:32 G	40363148.51	40363148.69	40363148.86	0.1575	0.0278
Venus	105799-05-12 15:20 G	40363482.98	40363483.14	40363483.30	0.1969	0.0714
Mercury	105801-10-02 14:23 G	40364356.07	40364356.10	40364356.13	0.1690	0.1609
Mercury	105802-11-04 21:06 G	40364754.21	40364754.38	40364754.54	0.1872	0.0158
Mercury	105803-09-07 17:59 G	40365061.15	40365061.25	40365061.35	0.1663	0.0801
Mercury	105812-03-26 14:23 G	40368184.00	40368184.10	40368184.20	0.1863	0.1498
Mercury	105813-01-28 05:01 G	40368491.60	40368491.71	40368491.83	0.1670	0.0226
Moon	105822-03-16 03:49 G	40371825.45	40371825.66	40371825.88	0.1846	0.0233
Earth	105822-03-16 04:47 G	40371825.51	40371825.70	40371825.89	0.1846	0.0378 *
Mercury	105822-06-20 16:18 G	40371922.06	40371922.18	40371922.29	0.1676	0.0355
Mercury	105831-11-11 03:20 G	40375352.54	40375352.64	40375352.73	0.1683	0.0942
Mercury	105833-10-16 06:42 G	40376057.72	40376057.78	40376057.83	0.1657	0.1430
Mercury	105841-04-02 14:23 G	40378783.05	40378783.10	40378783.14	0.1690	0.1539
Mercury	105842-05-05 22:04 G	40379181.25	40379181.42	40379181.59	0.1872	0.0324
Mercury	105843-03-08 17:44 G	40379488.15	40379488.24	40379488.34	0.1663	0.0869
Earth	105847-09-16 04:18 G	40381140.58	40381140.68	40381140.78	0.1690	0.1430
Moon	105847-09-16 11:01 G	40381140.87	40381140.96	40381141.06	0.1691	0.1455
Mercury	105851-09-25 14:52 G	40382611.01	40382611.12	40382611.24	0.1863	0.1366
Mercury	105852-07-29 05:01 G	40382918.60	40382918.71	40382918.83	0.1670	0.0304
Mercury	105861-12-19 16:18 G	40386349.06	40386349.18	40386349.29	0.1676	0.0281

Venus	105864-04-09 17:30 G	40387191.05	40387191.23	40387191.41	0.1575	0.0117
Venus	105865-03-09 16:47 G	40387525.10	40387525.20	40387525.31	0.1969	0.1553
Mercury	105871-05-12 03:20 G	40389779.54	40389779.64	40389779.73	0.1683	0.0873
Mercury	105873-04-16 06:28 G	40390484.73	40390484.77	40390484.82	0.1657	0.1504
Mercury	105880-10-01 14:08 G	40393210.04	40393210.09	40393210.15	0.1689	0.1470
Mercury	105881-11-03 23:01 G	40393608.30	40393608.46	40393608.62	0.1873	0.0484
Mercury	105882-09-06 17:44 G	40393915.15	40393915.24	40393915.34	0.1663	0.0943
Mercury	105891-03-26 16:04 G	40397038.04	40397038.17	40397038.30	0.1863	0.1189
Mercury	105892-01-28 05:01 G	40397345.60	40397345.71	40397345.82	0.1669	0.0372
Mercury	105901-06-20 16:04 G	40400776.06	40400776.17	40400776.29	0.1676	0.0215
Mercury	105910-11-11 03:20 G	40404206.54	40404206.64	40404206.74	0.1682	0.0795
Mercury	105912-10-16 06:28 G	40404911.74	40404911.77	40404911.81	0.1657	0.1578
Mercury	105920-04-02 14:08 G	40407637.03	40407637.09	40407637.16	0.1689	0.1397
Mercury	105921-05-05 23:44 G	40408035.33	40408035.49	40408035.65	0.1873	0.0636
Mercury	105922-03-08 17:44 G	40408342.15	40408342.24	40408342.33	0.1663	0.1018
Earth	105926-09-19 12:56 G	40409997.87	40409998.04	40409998.22	0.1696	0.0659
Moon	105926-09-19 16:18 G	40409997.99	40409998.18	40409998.38	0.1696	0.0524 *
Venus	105930-02-06 05:59 G	40411233.58	40411233.75	40411233.93	0.1574	0.0061
Mercury	105930-09-25 17:16 G	40411465.08	40411465.22	40411465.36	0.1864	0.1021
Mercury	105931-07-30 05:01 G	40411772.60	40411772.71	40411772.82	0.1669	0.0447
Mercury	105940-12-19 16:04 G	40415203.06	40415203.17	40415203.29	0.1676	0.0139
Mercury	105950-05-12 03:06 G	40418633.53	40418633.63	40418633.74	0.1682	0.0727
Mercury	105952-04-16 06:28 G	40419338.76	40419338.77	40419338.78	0.1657	0.1648
Mercury	105959-10-02 14:08 G	40422064.02	40422064.09	40422064.16	0.1689	0.1322
Mercury	105960-11-04 00:56 G	40422462.39	40422462.54	40422462.69	0.1873	0.0817
Mercury	105961-09-06 17:44 G	40422769.15	40422769.24	40422769.33	0.1663	0.1088
Mercury	105970-03-26 17:44 G	40425892.10	40425892.24	40425892.39	0.1864	0.0883
Mercury	105971-01-28 05:01 G	40426199.60	40426199.71	40426199.82	0.1669	0.0522
Mercury	105980-06-19 16:04 G	40429630.06	40429630.17	40429630.29	0.1675	0.0065
Mercury	105989-11-10 03:06 G	40433060.52	40433060.63	40433060.74	0.1682	0.0652

Venus 105995-12-04 19:25 G 40435276.13 40435276.31 40435276.48 0.1574 0.0210

Mercury 105999-04-02 14:08 G 40436491.02 40436491.09 40436491.17 0.1689 0.1251

Mercury 106000-05-05 01:54 G 40436889.43 40436889.58 40436889.72 0.1873 0.0974

107TH MILLENNIUM CE

This is a list of transits visible from Mars in the 107th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	106001-03-07 17:44	G	40437196.16	40437196.24	40437196.32	0.1663	0.1162	
Mercury	106009-09-24 18:56	G	40440319.13	40440319.29	40440319.45	0.1864	0.0709	
Mercury	106010-07-29 04:47	G	40440626.60	40440626.70	40440626.81	0.1669	0.0593	
Mercury	106019-12-19 16:04	G	40444057.05	40444057.17	40444057.28	0.1676	0.0022	
Venus	106027-12-03 10:32	G	40446962.92	40446962.94	40446962.96	0.1575	0.1559	
Venus	106028-11-02 00:13	G	40447297.39	40447297.51	40447297.64	0.1969	0.1306	
Mercury	106029-05-11 03:06	G	40447487.52	40447487.63	40447487.74	0.1682	0.0576	
Mercury	106038-10-01 14:08	G	40450918.01	40450918.09	40450918.17	0.1689	0.1177	
Mercury	106039-11-04 02:37	G	40451316.48	40451316.61	40451316.75	0.1874	0.1134	
Mercury	106040-09-05 17:44	G	40451623.16	40451623.24	40451623.31	0.1662	0.1239	
Mercury	106049-03-25 20:08	G	40454746.18	40454746.34	40454746.50	0.1864	0.0534	
Mercury	106050-01-27 04:47	G	40455053.60	40455053.70	40455053.81	0.1669	0.0664	
Mercury	106059-06-19 16:04	G	40458484.05	40458484.17	40458484.28	0.1675	0.0092	
Venus	106061-10-01 07:54	G	40459318.65	40459318.83	40459319.00	0.1574	0.0381	
Mercury	106068-11-09 03:06	G	40461914.52	40461914.63	40461914.74	0.1682	0.0507	
Mercury	106078-04-01 14:08	G	40465345.00	40465345.09	40465345.17	0.1689	0.1104	

Mercury	106079-05-05 03:49 G	40465743.54	40465743.66	40465743.78	0.1874	0.1309
Mercury	106080-03-06 17:30 G	40466050.16	40466050.23	40466050.30	0.1663	0.1308
Mercury	106088-09-23 20:37 G	40469173.19	40469173.36	40469173.53	0.1865	0.0398
Mercury	106089-07-28 04:47 G	40469480.60	40469480.70	40469480.81	0.1669	0.0743
Venus	106093-09-29 23:16 G	40471005.39	40471005.47	40471005.55	0.1575	0.1397
Venus	106094-08-30 01:54 G	40471339.41	40471339.58	40471339.74	0.1969	0.0467
Mercury	106098-12-18 16:04 G	40472911.05	40472911.17	40472911.28	0.1675	0.0165
Earth	106106-03-18 01:54 G	40475556.38	40475556.58	40475556.77	0.1856	0.0067
Moon	106106-03-18 10:04 G	40475556.73	40475556.92	40475557.12	0.1855	0.0329 *
Mercury	106108-05-11 02:52 G	40476341.51	40476341.62	40476341.74	0.1682	0.0438
Mercury	106117-10-01 14:08 G	40479772.00	40479772.09	40479772.18	0.1688	0.1032
Mercury	106118-11-04 04:32 G	40480170.59	40480170.69	40480170.80	0.1874	0.1474
Mercury	106119-09-06 17:30 G	40480477.17	40480477.23	40480477.29	0.1662	0.1384
Mercury	106127-02-22 00:56 G	40483202.52	40483202.54	40483202.57	0.1696	0.1643
Venus	106127-07-30 21:06 G	40483361.21	40483361.38	40483361.54	0.1574	0.0536
Mercury	106128-03-25 21:49 G	40483600.24	40483600.41	40483600.58	0.1865	0.0215
Mercury	106129-01-27 04:47 G	40483907.60	40483907.70	40483907.80	0.1669	0.0812
Moon	106131-09-18 21:35 G	40484872.23	40484872.40	40484872.56	0.1684	0.0698
Earth	106131-09-19 01:54 G	40484872.42	40484872.58	40484872.75	0.1684	0.0830 *
Mercury	106138-06-19 15:49 G	40487338.05	40487338.16	40487338.28	0.1675	0.0237
Mercury	106147-11-10 03:06 G	40490768.51	40490768.63	40490768.74	0.1681	0.0356
Mercury	106157-04-01 13:54 G	40494198.99	40494199.08	40494199.18	0.1688	0.0961
Mercury	106158-05-05 05:30 G	40494597.65	40494597.73	40494597.81	0.1875	0.1635
Mercury	106159-03-07 17:30 G	40494904.18	40494904.23	40494904.29	0.1662	0.1460
Venus	106159-07-29 12:13 G	40495047.91	40495048.01	40495048.12	0.1575	0.1235
Venus	106160-06-27 03:35 G	40495381.48	40495381.65	40495381.82	0.1970	0.0379
Mercury	106166-08-23 00:56 G	40497629.50	40497629.54	40497629.58	0.1695	0.1567
Mercury	106167-09-24 22:47 G	40498027.28	40498027.45	40498027.62	0.1865	0.0065
Mercury	106168-07-28 04:47 G	40498334.60	40498334.70	40498334.79	0.1668	0.0887
Mercury	106177-02-13 16:04 G	40501457.11	40501457.17	40501457.24	0.1855	0.1710

Mercury	106177-12-18 15:49 G	40501765.05	40501765.16	40501765.28	0.1675	0.0309
Mercury	106187-05-11 02:52 G	40505195.51	40505195.62	40505195.74	0.1681	0.0287
Venus	106193-05-27 09:49 G	40507403.76	40507403.91	40507404.07	0.1574	0.0700
Mercury	106196-09-30 14:08 G	40508625.99	40508626.09	40508626.18	0.1688	0.0882
Mercury	106197-11-03 06:42 G	40509024.74	40509024.78	40509024.82	0.1875	0.1812
Mercury	106198-09-05 17:30 G	40509331.19	40509331.23	40509331.27	0.1662	0.1533
Mercury	106206-02-22 00:56 G	40512056.49	40512056.54	40512056.59	0.1695	0.1493
Mercury	106207-03-26 23:30 G	40512454.31	40512454.48	40512454.65	0.1865	0.0098
Mercury	106208-01-28 04:47 G	40512761.61	40512761.70	40512761.79	0.1668	0.0964
Earth	106210-09-22 09:35 G	40513729.77	40513729.90	40513730.04	0.1689	0.1213
Moon	106210-09-22 11:44 G	40513729.90	40513729.99	40513730.07	0.1689	0.1468 *
Mercury	106216-08-15 17:01 G	40515884.12	40515884.21	40515884.31	0.1856	0.1546
Mercury	106217-06-19 15:49 G	40516192.05	40516192.16	40516192.27	0.1675	0.0381
Venus	106225-05-27 01:25 G	40519090.43	40519090.56	40519090.69	0.1574	0.1073
Venus	106226-04-25 05:30 G	40519423.59	40519423.73	40519423.87	0.1970	0.1196
Mercury	106226-11-10 02:52 G	40519622.51	40519622.62	40519622.74	0.1681	0.0211
Mercury	106236-04-01 13:54 G	40523052.98	40523053.08	40523053.18	0.1688	0.0812
Mercury	106238-03-07 17:30 G	40523758.20	40523758.23	40523758.25	0.1662	0.1606
Mercury	106245-08-23 00:56 G	40526483.48	40526483.54	40526483.60	0.1695	0.1421
Mercury	106246-09-25 00:42 G	40526881.36	40526881.53	40526881.70	0.1866	0.0276
Mercury	106247-07-29 04:32 G	40527188.61	40527188.69	40527188.78	0.1668	0.1037
Mercury	106256-02-14 17:59 G	40530311.14	40530311.25	40530311.36	0.1856	0.1388
Mercury	106256-12-18 15:49 G	40530619.05	40530619.16	40530619.27	0.1675	0.0456
Venus	106259-03-25 22:47 G	40531446.31	40531446.45	40531446.60	0.1574	0.0860
Mercury	106266-05-11 02:52 G	40534049.51	40534049.62	40534049.74	0.1681	0.0136
Mercury	106275-10-01 13:54 G	40537479.98	40537480.08	40537480.18	0.1688	0.0736
Mercury	106285-02-21 00:56 G	40540910.47	40540910.54	40540910.60	0.1695	0.1348
Mercury	106286-03-26 01:40 G	40541308.41	40541308.57	40541308.74	0.1866	0.0454
Mercury	106287-01-27 04:32 G	40541615.61	40541615.69	40541615.78	0.1668	0.1110
Venus	106291-03-24 14:08 G	40543132.95	40543133.09	40543133.24	0.1574	0.0912

Mercury	106295-08-15 18:56 G	40544738.16	40544738.29	40544738.41	0.1856	0.1229
Mercury	106296-06-18 15:49 G	40545046.05	40545046.16	40545046.27	0.1674	0.0530
Mercury	106305-11-10 02:52 G	40548476.50	40548476.62	40548476.73	0.1681	0.0069
Mercury	106315-04-02 13:54 G	40551906.98	40551907.08	40551907.19	0.1688	0.0659
Mercury	106324-08-23 00:56 G	40555337.46	40555337.54	40555337.61	0.1694	0.1269
Venus	106325-01-21 11:44 G	40555488.86	40555488.99	40555489.12	0.1573	0.1024
Mercury	106325-09-25 02:23 G	40555735.44	40555735.60	40555735.76	0.1866	0.0591
Mercury	106326-07-29 04:32 G	40556042.62	40556042.69	40556042.77	0.1668	0.1191
Mercury	106335-02-14 20:08 G	40559165.20	40559165.34	40559165.47	0.1857	0.1054
Mercury	106335-12-19 15:49 G	40559473.05	40559473.16	40559473.26	0.1674	0.0609
Mercury	106345-05-11 02:52 G	40562903.50	40562903.62	40562903.73	0.1681	0.0047
Mercury	106354-10-01 13:54 G	40566333.97	40566334.08	40566334.19	0.1687	0.0587
Venus	106357-01-20 03:06 G	40567175.48	40567175.63	40567175.79	0.1574	0.0746
Mercury	106364-02-22 00:42 G	40569764.45	40569764.53	40569764.61	0.1695	0.1200
Mercury	106365-03-26 03:35 G	40570162.50	40570162.65	40570162.80	0.1866	0.0780
Mercury	106366-01-27 04:32 G	40570469.62	40570469.69	40570469.76	0.1668	0.1260
Mercury	106374-08-15 20:37 G	40573592.22	40573592.36	40573592.51	0.1857	0.0909
Mercury	106375-06-19 15:35 G	40573900.05	40573900.15	40573900.26	0.1674	0.0683
Mercury	106384-11-09 02:52 G	40577330.50	40577330.62	40577330.73	0.1680	0.0098
Venus	106389-12-18 12:42 G	40579195.95	40579196.03	40579196.12	0.1970	0.1671
Moon	106390-03-19 14:37 G	40579286.93	40579287.11	40579287.29	0.1866	0.0350
Earth	106390-03-19 21:06 G	40579287.19	40579287.38	40579287.57	0.1865	0.0359 *
Venus	106390-11-19 00:42 G	40579531.42	40579531.53	40579531.65	0.1574	0.1187
Mercury	106394-04-01 13:54 G	40580760.97	40580761.08	40580761.19	0.1687	0.0514
Mercury	106403-08-23 00:42 G	40584191.45	40584191.53	40584191.62	0.1694	0.1123
Mercury	106404-09-24 04:32 G	40584589.54	40584589.69	40584589.83	0.1867	0.0944
Mercury	106405-07-28 04:32 G	40584896.62	40584896.69	40584896.76	0.1668	0.1336
Mercury	106414-02-13 21:49 G	40588019.25	40588019.41	40588019.56	0.1857	0.0735
Mercury	106414-12-18 15:35 G	40588327.05	40588327.15	40588327.25	0.1674	0.0756
Earth	106415-09-21 23:30 G	40588604.30	40588604.48	40588604.67	0.1677	0.0226

Moon	106415-09-22 01:40 G	40588604.37	40588604.57	40588604.77	0.1677	0.0349 *
Venus	106422-11-17 16:18 G	40591218.02	40591218.18	40591218.34	0.1574	0.0589
Mercury	106424-05-10 02:37 G	40591757.50	40591757.61	40591757.73	0.1681	0.0170
Mercury	106433-09-30 13:54 G	40595187.97	40595188.08	40595188.19	0.1687	0.0434
Mercury	106443-02-21 00:42 G	40598618.44	40598618.53	40598618.62	0.1694	0.1048
Mercury	106444-03-25 05:16 G	40599016.58	40599016.72	40599016.86	0.1867	0.1095
Mercury	106445-01-26 04:32 G	40599323.63	40599323.69	40599323.75	0.1667	0.1415
Mercury	106452-07-13 11:30 G	40602048.97	40602048.98	40602049.00	0.1701	0.1674
Mercury	106453-08-14 22:47 G	40602446.29	40602446.45	40602446.61	0.1857	0.0565
Mercury	106454-06-18 15:35 G	40602754.05	40602754.15	40602754.25	0.1674	0.0831
Venus	106455-10-15 14:37 G	40603237.95	40603238.11	40603238.26	0.1970	0.0831
Venus	106456-09-15 13:40 G	40603573.98	40603574.07	40603574.16	0.1573	0.1353
Mercury	106463-11-09 02:37 G	40606184.50	40606184.61	40606184.73	0.1680	0.0243
Mercury	106473-03-31 13:40 G	40609614.96	40609615.07	40609615.19	0.1687	0.0367
Mercury	106482-08-22 00:42 G	40613045.44	40613045.53	40613045.62	0.1694	0.0973
Mercury	106483-09-24 06:28 G	40613443.64	40613443.77	40613443.89	0.1867	0.1279
Mercury	106484-07-27 04:18 G	40613750.64	40613750.68	40613750.73	0.1667	0.1488
Venus	106488-09-14 04:47 G	40615260.53	40615260.70	40615260.87	0.1573	0.0418
Mercury	106492-01-12 11:44 G	40616475.95	40616475.99	40616476.02	0.1701	0.1594
Mercury	106493-02-12 23:30 G	40616873.32	40616873.48	40616873.65	0.1857	0.0414
Mercury	106493-12-17 15:35 G	40617181.05	40617181.15	40617181.25	0.1674	0.0908
Mercury	106503-05-11 02:37 G	40620611.50	40620611.61	40620611.73	0.1680	0.0320
Mercury	106512-09-30 13:40 G	40624041.96	40624042.07	40624042.19	0.1687	0.0287
Venus	106521-08-12 16:04 G	40627280.00	40627280.17	40627280.34	0.1970	0.0021
Mercury	106522-02-21 00:42 G	40627472.43	40627472.53	40627472.63	0.1694	0.0899
Venus	106522-07-15 02:23 G	40627616.56	40627616.60	40627616.65	0.1574	0.1523
Mercury	106523-03-26 07:25 G	40627870.70	40627870.81	40627870.91	0.1867	0.1452
Mercury	106524-01-27 04:18 G	40628177.65	40628177.68	40628177.72	0.1667	0.1563
Mercury	106531-07-14 11:30 G	40630902.93	40630902.98	40630903.03	0.1701	0.1525
Mercury	106532-08-15 00:28 G	40631300.35	40631300.52	40631300.69	0.1858	0.0249

Mercury	106533-06-18 15:35 G	40631608.05	40631608.15	40631608.24	0.1673	0.0982
Mercury	106542-11-09 02:37 G	40635038.50	40635038.61	40635038.72	0.1680	0.0390
Mercury	106552-03-31 13:40 G	40638468.96	40638469.07	40638469.19	0.1687	0.0211
Venus	106554-07-13 17:59 G	40639303.08	40639303.25	40639303.43	0.1573	0.0260
Mercury	106561-08-22 00:42 G	40641899.43	40641899.53	40641899.63	0.1693	0.0821
Mercury	106562-09-24 07:54 G	40642297.75	40642297.83	40642297.92	0.1868	0.1594
Mercury	106563-07-28 04:18 G	40642604.67	40642604.68	40642604.70	0.1667	0.1643
Mercury	106571-01-12 11:30 G	40645329.92	40645329.98	40645330.04	0.1701	0.1449
Mercury	106572-02-14 01:40 G	40645727.40	40645727.57	40645727.74	0.1858	0.0068
Mercury	106572-12-17 15:35 G	40646035.06	40646035.15	40646035.23	0.1673	0.1059
Mercury	106581-07-05 19:11 G	40649157.24	40649157.30	40649157.36	0.1848	0.1722
Mercury	106582-05-10 02:37 G	40649465.50	40649465.61	40649465.72	0.1680	0.0467
Venus	106587-06-09 17:44 G	40651322.09	40651322.24	40651322.40	0.1970	0.0865
Mercury	106591-09-30 13:40 G	40652895.95	40652896.07	40652896.18	0.1687	0.0135
Mercury	106601-02-21 00:28 G	40656326.42	40656326.52	40656326.63	0.1694	0.0751
Mercury	106602-03-26 09:06 G	40656724.84	40656724.88	40656724.93	0.1868	0.1787
Mercury	106610-07-14 11:30 G	40659756.92	40659756.98	40659757.05	0.1701	0.1369
Mercury	106611-08-16 02:23 G	40660154.43	40660154.60	40660154.77	0.1858	0.0083
Mercury	106612-06-18 15:20 G	40660462.06	40660462.14	40660462.23	0.1673	0.1135
Venus	106620-05-11 06:42 G	40663345.61	40663345.78	40663345.96	0.1573	0.0098
Moon	106620-09-21 09:49 G	40663478.88	40663478.91	40663478.94	0.1666	0.1634
Earth	106620-09-21 14:52 G	40663479.06	40663479.12	40663479.17	0.1666	0.1578
Mercury	106621-01-04 20:08 G	40663584.25	40663584.34	40663584.43	0.1849	0.1560
Mercury	106621-11-09 02:37 G	40663892.50	40663892.61	40663892.72	0.1680	0.0546
Mercury	106631-04-01 13:40 G	40667322.95	40667323.07	40667323.18	0.1686	0.0088
Mercury	106640-08-22 00:28 G	40670753.42	40670753.52	40670753.63	0.1693	0.0674
Mercury	106650-01-12 11:30 G	40674183.90	40674183.98	40674184.05	0.1701	0.1300
Mercury	106651-02-14 03:20 G	40674581.48	40674581.64	40674581.81	0.1859	0.0259
Mercury	106651-12-18 15:20 G	40674889.06	40674889.14	40674889.22	0.1673	0.1210
Venus	106653-04-06 19:40 G	40675364.23	40675364.32	40675364.40	0.1969	0.1691

Mercury	106660-07-05 21:06 G	40678011.27	40678011.38	40678011.49	0.1849	0.1393
Mercury	106661-05-10 02:23 G	40678319.50	40678319.60	40678319.71	0.1680	0.0618
Mercury	106670-09-30 13:40 G	40681749.95	40681750.07	40681750.18	0.1686	0.0035
Earth	106674-03-21 13:11 G	40683017.88	40683018.05	40683018.22	0.1875	0.0932
Moon	106674-03-21 15:35 G	40683017.99	40683018.15	40683018.32	0.1875	0.1168 *
Mercury	106680-02-21 00:28 G	40685180.41	40685180.52	40685180.63	0.1693	0.0596
Venus	106686-03-08 19:40 G	40687388.14	40687388.32	40687388.50	0.1574	0.0075
Mercury	106689-07-13 11:30 G	40688610.90	40688610.98	40688611.05	0.1700	0.1223
Mercury	106690-08-15 04:32 G	40689008.52	40689008.69	40689008.85	0.1859	0.0431
Mercury	106691-06-18 15:20 G	40689316.07	40689316.14	40689316.21	0.1673	0.1285
Earth	106699-09-24 21:49 G	40692336.23	40692336.41	40692336.60	0.1671	0.0381
Moon	106699-09-24 22:18 G	40692336.26	40692336.43	40692336.61	0.1671	0.0279 *
Mercury	106700-01-04 22:04 G	40692438.29	40692438.42	40692438.54	0.1849	0.1233
Mercury	106700-11-09 02:23 G	40692746.50	40692746.60	40692746.71	0.1679	0.0696
Mercury	106710-04-01 13:25 G	40696176.95	40696177.06	40696177.18	0.1686	0.0096
Mercury	106719-08-23 00:28 G	40699607.41	40699607.52	40699607.63	0.1693	0.0519
Mercury	106729-01-12 11:30 G	40703037.89	40703037.98	40703038.06	0.1700	0.1143
Mercury	106730-02-14 05:16 G	40703435.55	40703435.72	40703435.88	0.1859	0.0581
Mercury	106730-12-18 15:20 G	40703743.07	40703743.14	40703743.20	0.1673	0.1364
Mercury	106739-07-06 22:47 G	40706865.32	40706865.45	40706865.59	0.1850	0.1076
Mercury	106740-05-10 02:23 G	40707173.50	40707173.60	40707173.70	0.1679	0.0774
Mercury	106749-09-30 13:25 G	40710603.95	40710604.06	40710604.18	0.1686	0.0169
Venus	106752-01-05 08:37 G	40711430.69	40711430.86	40711431.04	0.1573	0.0237
Mercury	106759-02-21 00:28 G	40714034.41	40714034.52	40714034.63	0.1693	0.0446
Mercury	106768-07-13 11:16 G	40717464.88	40717464.97	40717465.06	0.1700	0.1072
Mercury	106769-08-15 06:13 G	40717862.60	40717862.76	40717862.91	0.1859	0.0752
Mercury	106770-06-18 15:20 G	40718170.08	40718170.14	40718170.19	0.1673	0.1438
Mercury	106777-12-03 22:04 G	40720895.42	40720895.42	40720895.43	0.1707	0.1706
Mercury	106779-01-04 23:59 G	40721292.35	40721292.50	40721292.65	0.1850	0.0900
Mercury	106779-11-09 02:23 G	40721600.50	40721600.60	40721600.70	0.1679	0.0847

Venus	106784-01-03 23:59 G	40723117.47	40723117.50	40723117.54	0.1573	0.1537
Mercury	106789-03-31 13:25 G	40725030.95	40725031.06	40725031.18	0.1686	0.0249
Mercury	106798-08-22 00:28 G	40728461.40	40728461.52	40728461.63	0.1693	0.0369
Mercury	106808-01-12 11:16 G	40731891.88	40731891.97	40731892.06	0.1700	0.0995
Mercury	106809-02-13 07:11 G	40732289.66	40732289.80	40732289.95	0.1860	0.0937
Mercury	106809-12-17 15:06 G	40732597.09	40732597.13	40732597.18	0.1672	0.1515
Venus	106816-11-30 02:37 G	40735136.48	40735136.61	40735136.75	0.1970	0.1164
Mercury	106817-06-03 22:04 G	40735322.39	40735322.42	40735322.45	0.1707	0.1632
Venus	106817-11-01 21:20 G	40735473.22	40735473.39	40735473.56	0.1574	0.0407
Mercury	106818-07-06 00:42 G	40735719.38	40735719.53	40735719.69	0.1850	0.0746
Mercury	106819-05-10 02:23 G	40736027.50	40736027.60	40736027.69	0.1679	0.0924
Mercury	106828-09-29 13:25 G	40739457.94	40739458.06	40739458.17	0.1686	0.0324
Mercury	106838-02-20 00:13 G	40742888.40	40742888.51	40742888.63	0.1693	0.0298
Mercury	106847-07-13 11:16 G	40746318.88	40746318.97	40746319.07	0.1700	0.0914
Mercury	106848-08-14 07:54 G	40746716.69	40746716.83	40746716.97	0.1860	0.1076
Mercury	106849-06-17 15:06 G	40747024.10	40747024.13	40747024.16	0.1673	0.1594
Venus	106849-10-31 12:56 G	40747159.95	40747160.04	40747160.12	0.1573	0.1375
Mercury	106856-12-02 22:04 G	40749749.38	40749749.42	40749749.46	0.1707	0.1555
Mercury	106858-01-04 01:40 G	40750146.41	40750146.57	40750146.73	0.1850	0.0579
Mercury	106858-11-08 02:23 G	40750454.51	40750454.60	40750454.69	0.1679	0.1004
Mercury	106868-03-30 13:11 G	40753884.94	40753885.05	40753885.17	0.1686	0.0401
Mercury	106877-08-21 00:13 G	40757315.40	40757315.51	40757315.63	0.1692	0.0219
Venus	106882-09-27 04:18 G	40759178.51	40759178.68	40759178.85	0.1970	0.0320
Venus	106883-08-30 10:18 G	40759515.76	40759515.93	40759516.09	0.1574	0.0575
Mercury	106887-01-11 11:16 G	40760745.87	40760745.97	40760746.07	0.1700	0.0844
Mercury	106888-02-13 08:52 G	40761143.75	40761143.87	40761144.00	0.1860	0.1261
Mercury	106888-12-16 15:06 G	40761451.13	40761451.13	40761451.13	0.1672	0.1668
Mercury	106896-06-02 22:04 G	40764176.36	40764176.42	40764176.47	0.1707	0.1477
Mercury	106897-07-05 02:37 G	40764573.44	40764573.61	40764573.77	0.1850	0.0415
Mercury	106898-05-09 02:08 G	40764881.51	40764881.59	40764881.68	0.1679	0.1076

Earth	106904-09-24 14:08 G	40767210.94	40767211.09	40767211.25	0.1660	0.0944
Moon	106904-09-24 18:56 G	40767211.11	40767211.29	40767211.48	0.1661	0.0638 *
Mercury	106907-09-30 13:25 G	40768311.95	40768312.06	40768312.17	0.1685	0.0484
Venus	106915-08-30 01:25 G	40771202.45	40771202.56	40771202.68	0.1573	0.1203
Mercury	106917-02-20 00:13 G	40771742.40	40771742.51	40771742.63	0.1692	0.0139
Mercury	106926-07-13 11:01 G	40775172.86	40775172.96	40775173.07	0.1700	0.0769
Mercury	106927-08-15 10:04 G	40775570.81	40775570.92	40775571.02	0.1860	0.1434
Mercury	106935-12-03 22:04 G	40778603.35	40778603.42	40778603.48	0.1707	0.1404
Mercury	106937-01-04 03:35 G	40779000.48	40779000.65	40779000.81	0.1851	0.0255
Mercury	106937-11-08 02:08 G	40779308.51	40779308.59	40779308.67	0.1679	0.1154
Mercury	106947-03-31 13:11 G	40782738.94	40782739.05	40782739.16	0.1685	0.0550
Venus	106948-07-25 05:59 G	40783220.58	40783220.75	40783220.91	0.1969	0.0532
Venus	106949-06-27 23:01 G	40783558.31	40783558.46	40783558.62	0.1574	0.0745
Mercury	106956-08-21 00:13 G	40786169.39	40786169.51	40786169.62	0.1692	0.0060
Earth	106958-03-23 02:37 G	40786748.52	40786748.61	40786748.70	0.1885	0.1678
Moon	106958-03-23 04:32 G	40786748.58	40786748.69	40786748.79	0.1885	0.1536 *
Mercury	106966-01-11 11:16 G	40789599.86	40789599.97	40789600.07	0.1699	0.0687
Mercury	106967-02-13 10:32 G	40789997.86	40789997.94	40789998.03	0.1860	0.1584
Mercury	106975-06-03 21:49 G	40793030.34	40793030.41	40793030.48	0.1707	0.1328
Mercury	106976-07-05 04:18 G	40793427.51	40793427.68	40793427.85	0.1851	0.0088
Mercury	106977-05-09 02:08 G	40793735.51	40793735.59	40793735.67	0.1678	0.1232
Venus	106981-06-26 14:37 G	40795244.98	40795245.11	40795245.24	0.1574	0.1044
Moon	106983-09-27 18:42 G	40796068.13	40796068.28	40796068.43	0.1665	0.1139
Earth	106983-09-27 20:37 G	40796068.20	40796068.36	40796068.51	0.1665	0.0972 *
Mercury	106985-11-24 22:18 G	40796857.37	40796857.43	40796857.49	0.1841	0.1710
Mercury	106986-09-29 13:11 G	40797165.94	40797166.05	40797166.15	0.1685	0.0629
Mercury	106996-02-20 00:13 G	40800596.39	40800596.51	40800596.62	0.1692	0.0049

108TH MILLENNIUM CE

This is a list of transits visible from Mars in the 108th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	107005-07-13 11:01	G	40804026.85	40804026.96	40804027.07	0.1699	0.0613	
Mercury	107006-08-15 11:44	G	40804424.93	40804424.99	40804425.04	0.1861	0.1762	
Venus	107014-05-23 07:25	G	40807262.69	40807262.81	40807262.93	0.1969	0.1388	
Mercury	107014-12-03 21:49	G	40807457.34	40807457.41	40807457.49	0.1706	0.1247	
Venus	107015-04-26 11:59	G	40807600.86	40807601.00	40807601.15	0.1575	0.0912	
Mercury	107016-01-05 05:16	G	40807854.55	40807854.72	40807854.89	0.1851	0.0094	
Mercury	107016-11-08 02:08	G	40808162.52	40808162.59	40808162.66	0.1678	0.1309	
Mercury	107025-05-26 22:47	G	40811284.37	40811284.45	40811284.54	0.1841	0.1575	
Mercury	107026-03-31 13:11	G	40811592.94	40811593.05	40811593.15	0.1685	0.0709	
Mercury	107035-08-22 00:13	G	40815023.39	40815023.51	40815023.62	0.1692	0.0112	
Mercury	107045-01-11 11:01	G	40818453.85	40818453.96	40818454.07	0.1699	0.0534	
Venus	107047-04-25 03:06	G	40819287.49	40819287.63	40819287.78	0.1574	0.0873	
Mercury	107054-06-03 21:49	G	40821884.33	40821884.41	40821884.49	0.1706	0.1174	
Mercury	107055-07-06 05:59	G	40822281.59	40822281.75	40822281.92	0.1851	0.0248	
Mercury	107056-05-09 01:54	G	40822589.52	40822589.58	40822589.65	0.1678	0.1386	
Mercury	107064-11-25 00:13	G	40825711.40	40825711.51	40825711.62	0.1842	0.1389	
Mercury	107065-09-29 12:56	G	40826019.94	40826020.04	40826020.15	0.1685	0.0785	
Mercury	107075-02-19 23:59	G	40829450.39	40829450.50	40829450.62	0.1692	0.0175	
Venus	107081-02-21 00:28	G	40831643.39	40831643.52	40831643.64	0.1575	0.1092	
Mercury	107084-07-12 11:01	G	40832880.85	40832880.96	40832881.07	0.1699	0.0454	
Mercury	107093-12-02 21:49	G	40836311.32	40836311.41	40836311.49	0.1706	0.1097	
Mercury	107095-01-04 07:11	G	40836708.63	40836708.80	40836708.96	0.1852	0.0419	

Mercury	107095-11-08 01:54 G	40837016.53	40837016.58	40837016.64	0.1678	0.1466
Mercury	107104-05-27 00:56 G	40840138.42	40840138.54	40840138.67	0.1842	0.1228
Mercury	107105-03-31 12:56 G	40840446.94	40840447.04	40840447.14	0.1685	0.0859
Venus	107113-02-20 16:04 G	40843330.01	40843330.17	40843330.33	0.1574	0.0705
Mercury	107114-08-21 23:59 G	40843877.39	40843877.50	40843877.62	0.1692	0.0251
Mercury	107124-01-12 10:47 G	40847307.84	40847307.95	40847308.07	0.1699	0.0386
Mercury	107133-06-03 21:49 G	40850738.32	40850738.41	40850738.50	0.1706	0.1016
Mercury	107134-07-06 07:54 G	40851135.67	40851135.83	40851135.99	0.1852	0.0580
Mercury	107135-05-10 01:54 G	40851443.54	40851443.58	40851443.62	0.1678	0.1540
Mercury	107142-10-25 08:37 G	40854168.83	40854168.86	40854168.88	0.1713	0.1666
Mercury	107143-11-26 01:40 G	40854565.43	40854565.57	40854565.71	0.1842	0.1080
Mercury	107144-09-29 12:56 G	40854873.95	40854874.04	40854874.14	0.1684	0.0944
Venus	107146-12-20 13:25 G	40855685.96	40855686.06	40855686.17	0.1575	0.1256
Mercury	107154-02-19 23:59 G	40858304.39	40858304.50	40858304.61	0.1691	0.0325
Mercury	107163-07-13 10:47 G	40861734.84	40861734.95	40861735.07	0.1699	0.0307
Mercury	107172-12-02 21:35 G	40865165.31	40865165.40	40865165.50	0.1706	0.0943
Mercury	107174-01-04 08:52 G	40865562.71	40865562.87	40865563.03	0.1852	0.0748
Mercury	107174-11-08 01:54 G	40865870.55	40865870.58	40865870.61	0.1678	0.1619
Venus	107178-01-15 14:52 G	40867035.00	40867035.12	40867035.23	0.1970	0.1483
Venus	107178-12-19 05:01 G	40867372.54	40867372.71	40867372.87	0.1574	0.0536
Mercury	107182-04-25 08:23 G	40868595.81	40868595.85	40868595.89	0.1713	0.1592
Mercury	107183-05-27 02:52 G	40868992.47	40868992.62	40868992.77	0.1843	0.0901
Mercury	107184-03-30 12:56 G	40869300.95	40869301.04	40869301.13	0.1685	0.1015
Moon	107188-09-27 13:11 G	40870942.87	40870943.05	40870943.22	0.1655	0.0460
Earth	107188-09-27 14:08 G	40870942.90	40870943.09	40870943.28	0.1655	0.0306 *
Mercury	107193-08-20 23:59 G	40872731.39	40872731.50	40872731.61	0.1691	0.0406
Mercury	107203-01-11 10:47 G	40876161.84	40876161.95	40876162.07	0.1698	0.0226
Mercury	107212-06-02 21:35 G	40879592.30	40879592.40	40879592.50	0.1706	0.0864
Venus	107212-10-17 01:40 G	40879728.51	40879728.57	40879728.65	0.1576	0.1438
Mercury	107213-07-05 09:49 G	40879989.76	40879989.91	40879990.06	0.1853	0.0919

Mercury	107221-10-24 08:23 G	40883022.80	40883022.85	40883022.90	0.1713	0.1513
Mercury	107222-11-25 03:49 G	40883419.50	40883419.66	40883419.81	0.1843	0.0736
Mercury	107223-09-29 12:42 G	40883727.95	40883728.03	40883728.12	0.1684	0.1096
Mercury	107233-02-18 23:59 G	40887158.38	40887158.50	40887158.61	0.1691	0.0485
Mercury	107242-07-12 10:47 G	40890588.83	40890588.95	40890589.06	0.1698	0.0149
Venus	107243-11-12 16:18 G	40891077.02	40891077.18	40891077.34	0.1969	0.0623
Venus	107244-10-15 17:30 G	40891415.06	40891415.23	40891415.40	0.1575	0.0363
Mercury	107251-12-02 21:35 G	40894019.30	40894019.40	40894019.50	0.1705	0.0782
Mercury	107253-01-03 10:47 G	40894416.81	40894416.95	40894417.08	0.1853	0.1087
Mercury	107261-04-24 08:23 G	40897449.79	40897449.85	40897449.91	0.1713	0.1435
Mercury	107262-05-26 04:18 G	40897846.52	40897846.68	40897846.84	0.1843	0.0590
Mercury	107263-03-30 12:56 G	40898154.95	40898155.04	40898155.12	0.1684	0.1177
Earth	107267-09-30 19:25 G	40899800.26	40899800.31	40899800.37	0.1659	0.1567
Moon	107267-10-01 00:28 G	40899800.51	40899800.52	40899800.52	0.1659	0.1657
Mercury	107272-08-19 23:44 G	40901585.38	40901585.49	40901585.60	0.1691	0.0562
Mercury	107282-01-10 10:47 G	40905015.83	40905015.95	40905016.06	0.1698	0.0076
Mercury	107291-06-02 21:35 G	40908446.29	40908446.40	40908446.50	0.1705	0.0710
Mercury	107292-07-04 11:30 G	40908843.85	40908843.98	40908844.10	0.1853	0.1248
Mercury	107300-10-24 08:23 G	40911876.78	40911876.85	40911876.92	0.1713	0.1356
Mercury	107301-11-25 05:30 G	40912273.57	40912273.73	40912273.90	0.1843	0.0402
Mercury	107302-09-29 12:42 G	40912581.96	40912582.03	40912582.11	0.1684	0.1250
Venus	107309-09-09 17:59 G	40915119.08	40915119.25	40915119.42	0.1968	0.0228
Venus	107310-08-14 06:28 G	40915457.59	40915457.77	40915457.95	0.1575	0.0194
Mercury	107312-02-19 23:44 G	40916012.39	40916012.49	40916012.60	0.1691	0.0640
Moon	107321-03-28 14:23 G	40919337.01	40919337.10	40919337.20	0.1888	0.1641
Earth	107321-03-28 23:44 G	40919337.38	40919337.49	40919337.60	0.1888	0.1554
Mercury	107321-07-12 10:47 G	40919442.83	40919442.95	40919443.06	0.1698	0.0052
Mercury	107330-12-02 21:35 G	40922873.29	40922873.40	40922873.50	0.1705	0.0632
Mercury	107332-01-04 12:28 G	40923270.92	40923271.02	40923271.13	0.1853	0.1431
Mercury	107340-04-24 08:23 G	40926303.77	40926303.85	40926303.92	0.1713	0.1280

Mercury	107341-05-26 06:28 G	40926700.60	40926700.77	40926700.94	0.1843	0.0241
Mercury	107342-03-30 12:42 G	40927008.96	40927009.03	40927009.10	0.1684	0.1329
Mercury	107351-08-20 23:44 G	40930439.39	40930439.49	40930439.59	0.1691	0.0716
Mercury	107361-01-10 10:32 G	40933869.83	40933869.94	40933870.06	0.1698	0.0094
Mercury	107370-06-02 21:35 G	40937300.29	40937300.40	40937300.51	0.1705	0.0549
Mercury	107371-07-05 13:25 G	40937697.97	40937698.06	40937698.14	0.1853	0.1591
Venus	107375-07-07 19:40 G	40939161.18	40939161.32	40939161.47	0.1967	0.1069
Venus	107376-06-10 19:11 G	40939500.13	40939500.30	40939500.48	0.1575	0.0038
Mercury	107379-10-24 08:23 G	40940730.77	40940730.85	40940730.93	0.1712	0.1200
Mercury	107380-11-24 07:11 G	40941127.63	40941127.80	40941127.97	0.1844	0.0091
Mercury	107381-09-28 12:42 G	40941435.97	40941436.03	40941436.09	0.1684	0.1413
Mercury	107390-04-16 01:25 G	40944557.50	40944557.56	40944557.62	0.1834	0.1697
Mercury	107391-02-18 23:44 G	40944866.39	40944866.49	40944866.59	0.1691	0.0795
Earth	107393-09-27 09:20 G	40945817.81	40945817.89	40945817.97	0.1645	0.1481
Moon	107393-09-27 14:37 G	40945818.03	40945818.11	40945818.20	0.1645	0.1461
Mercury	107400-07-12 10:32 G	40948296.83	40948296.94	40948297.05	0.1698	0.0168
Mercury	107409-12-02 21:20 G	40951727.28	40951727.39	40951727.50	0.1705	0.0473
Mercury	107411-01-04 14:23 G	40952125.05	40952125.10	40952125.14	0.1854	0.1765
Mercury	107419-04-25 08:08 G	40955157.76	40955157.84	40955157.93	0.1712	0.1122
Mercury	107420-05-26 08:08 G	40955554.67	40955554.84	40955555.01	0.1844	0.0095
Mercury	107421-03-30 12:28 G	40955862.97	40955863.02	40955863.08	0.1684	0.1486
Mercury	107429-10-16 02:08 G	40958984.50	40958984.59	40958984.68	0.1834	0.1554
Mercury	107430-08-20 23:44 G	40959293.39	40959293.49	40959293.58	0.1691	0.0879
Mercury	107440-01-11 10:32 G	40962723.83	40962723.94	40962724.05	0.1697	0.0250
Venus	107441-05-04 21:20 G	40963203.36	40963203.39	40963203.43	0.1966	0.1916
Venus	107442-04-09 08:08 G	40963542.66	40963542.84	40963543.01	0.1576	0.0149
Mercury	107449-06-02 21:20 G	40966154.28	40966154.39	40966154.50	0.1705	0.0393
Mercury	107458-10-24 08:08 G	40969584.75	40969584.84	40969584.93	0.1712	0.1042
Mercury	107459-11-25 09:06 G	40969981.71	40969981.88	40969982.05	0.1844	0.0264
Mercury	107460-09-28 12:28 G	40970289.98	40970290.02	40970290.06	0.1683	0.1568

Mercury	107468-03-15 18:42 G	40973015.28	40973015.28	40973015.29	0.1720	0.1710
Mercury	107469-04-16 03:06 G	40973411.52	40973411.63	40973411.74	0.1835	0.1377
Mercury	107470-02-18 23:30 G	40973720.39	40973720.48	40973720.58	0.1690	0.0953
Moon	107472-09-30 14:23 G	40974674.89	40974675.10	40974675.30	0.1649	0.0182
Earth	107472-09-30 14:37 G	40974674.93	40974675.11	40974675.30	0.1649	0.0337 *
Mercury	107479-07-12 10:32 G	40977150.82	40977150.94	40977151.05	0.1698	0.0330
Mercury	107488-12-01 21:20 G	40980581.28	40980581.39	40980581.50	0.1705	0.0309
Mercury	107498-04-24 08:08 G	40984011.75	40984011.84	40984011.93	0.1712	0.0963
Mercury	107499-05-26 09:49 G	40984408.74	40984408.91	40984409.07	0.1845	0.0417
Mercury	107500-03-30 12:27 G	40984717.00	40984717.02	40984717.04	0.1683	0.1650
Mercury	107507-09-15 18:42 G	40987442.25	40987442.28	40987442.32	0.1719	0.1627
Venus	107508-02-05 20:37 G	40987585.18	40987585.36	40987585.53	0.1576	0.0327
Mercury	107508-10-16 04:03 G	40987838.55	40987838.67	40987838.80	0.1835	0.1204
Mercury	107509-08-20 23:30 G	40988147.39	40988147.48	40988147.57	0.1690	0.1034
Mercury	107519-01-11 10:18 G	40991577.82	40991577.93	40991578.05	0.1697	0.0411
Mercury	107528-06-02 21:20 G	40995008.27	40995008.39	40995008.50	0.1704	0.0239
Mercury	107537-10-24 08:08 G	40998438.74	40998438.84	40998438.94	0.1712	0.0881
Mercury	107538-11-25 11:01 G	40998835.80	40998835.96	40998836.12	0.1845	0.0607
Venus	107539-03-03 02:23 G	40998933.53	40998933.60	40998933.67	0.1968	0.1777
Venus	107540-02-04 12:13 G	40999271.96	40999272.01	40999272.07	0.1575	0.1481
Mercury	107547-03-16 18:42 G	41001869.24	41001869.28	41001869.33	0.1719	0.1546
Mercury	107548-04-16 04:47 G	41002265.56	41002265.70	41002265.84	0.1835	0.1058
Mercury	107549-02-18 23:30 G	41002574.39	41002574.48	41002574.57	0.1690	0.1115
Mercury	107558-07-12 10:18 G	41006004.82	41006004.93	41006005.04	0.1697	0.0492
Mercury	107567-12-02 21:20 G	41009435.27	41009435.39	41009435.50	0.1704	0.0166
Venus	107573-12-03 09:35 G	41011627.73	41011627.90	41011628.07	0.1577	0.0492
Mercury	107577-04-24 08:08 G	41012865.74	41012865.84	41012865.94	0.1712	0.0805
Mercury	107578-05-26 11:44 G	41013262.84	41013262.99	41013263.15	0.1845	0.0771
Mercury	107586-09-14 18:42 G	41016296.22	41016296.28	41016296.34	0.1719	0.1468
Mercury	107587-10-16 05:44 G	41016692.59	41016692.74	41016692.89	0.1835	0.0881

Mercury	107588-08-19 23:30 G	41017001.40	41017001.48	41017001.56	0.1690	0.1193
Mercury	107598-01-10 10:18 G	41020431.82	41020431.93	41020432.04	0.1697	0.0566
Venus	107604-12-28 04:32 G	41022975.54	41022975.69	41022975.84	0.1968	0.0944
Earth	107605-03-30 10:18 G	41023067.74	41023067.93	41023068.11	0.1897	0.0700
Moon	107605-03-30 17:15 G	41023068.03	41023068.22	41023068.42	0.1897	0.0706 *
Venus	107605-12-02 01:11 G	41023314.45	41023314.55	41023314.65	0.1575	0.1310
Mercury	107607-06-02 21:20 G	41023862.27	41023862.39	41023862.50	0.1704	0.0081
Mercury	107616-10-23 07:54 G	41027292.73	41027292.83	41027292.94	0.1711	0.0725
Mercury	107617-11-24 12:27 G	41027689.88	41027690.02	41027690.17	0.1845	0.0933
Mercury	107626-03-15 18:42 G	41030723.21	41030723.28	41030723.34	0.1719	0.1388
Mercury	107627-04-16 06:56 G	41031119.63	41031119.79	41031119.94	0.1836	0.0703
Mercury	107628-02-18 23:15 G	41031428.40	41031428.47	41031428.55	0.1690	0.1274
Mercury	107637-07-11 10:18 G	41034858.82	41034858.93	41034859.04	0.1697	0.0647
Venus	107639-09-30 21:49 G	41035670.25	41035670.41	41035670.57	0.1578	0.0675
Mercury	107646-12-01 21:06 G	41038289.27	41038289.38	41038289.50	0.1704	0.0027
Mercury	107656-04-23 07:54 G	41041719.73	41041719.83	41041719.94	0.1711	0.0643
Mercury	107657-05-25 13:39 G	41042116.94	41042117.07	41042117.20	0.1845	0.1115
Mercury	107665-09-13 18:42 G	41045150.21	41045150.28	41045150.35	0.1719	0.1302
Mercury	107666-10-15 07:25 G	41045546.65	41045546.81	41045546.97	0.1836	0.0557
Mercury	107667-08-19 23:15 G	41045855.41	41045855.47	41045855.54	0.1690	0.1360
Venus	107670-10-25 06:27 G	41047017.60	41047017.77	41047017.94	0.1966	0.0110
Venus	107671-09-29 13:54 G	41047356.96	41047357.08	41047357.20	0.1576	0.1139
Mercury	107677-01-09 10:18 G	41049285.83	41049285.93	41049286.03	0.1696	0.0730
Moon	107677-09-30 06:56 G	41049549.63	41049549.79	41049549.96	0.1639	0.0644
Earth	107677-09-30 11:15 G	41049549.80	41049549.97	41049550.13	0.1640	0.0811 *
Mercury	107686-06-01 21:06 G	41052716.27	41052716.38	41052716.50	0.1704	0.0088
Mercury	107695-10-23 07:54 G	41056146.72	41056146.83	41056146.94	0.1711	0.0561
Mercury	107696-11-23 14:37 G	41056543.99	41056544.11	41056544.23	0.1846	0.1287
Mercury	107705-03-15 18:27 G	41059577.20	41059577.27	41059577.35	0.1719	0.1230
Venus	107705-07-29 10:47 G	41059712.80	41059712.95	41059713.10	0.1579	0.0846

Mercury	107706-04-16 08:37 G	41059973.69	41059973.86	41059974.03	0.1836	0.0372
Mercury	107707-02-18 23:15 G	41060282.41	41060282.47	41060282.53	0.1689	0.1434
Mercury	107716-07-11 10:03 G	41063712.82	41063712.92	41063713.03	0.1697	0.0811
Mercury	107725-12-01 21:06 G	41067143.27	41067143.38	41067143.50	0.1704	0.0178
Mercury	107735-04-24 07:54 G	41070573.72	41070573.83	41070573.94	0.1711	0.0481
Mercury	107736-05-25 15:20 G	41070971.04	41070971.14	41070971.24	0.1846	0.1449
Venus	107736-08-22 08:08 G	41071059.69	41071059.84	41071060.00	0.1965	0.0737
Venus	107737-07-28 02:51 G	41071399.48	41071399.62	41071399.75	0.1576	0.0969
Mercury	107744-09-13 18:42 G	41074004.19	41074004.28	41074004.36	0.1718	0.1145
Mercury	107745-10-15 09:35 G	41074400.73	41074400.90	41074401.07	0.1836	0.0199
Mercury	107746-08-19 23:15 G	41074709.42	41074709.47	41074709.52	0.1689	0.1516
Mercury	107755-03-07 03:49 G	41077830.65	41077830.66	41077830.67	0.1826	0.1821
Mercury	107756-01-10 10:03 G	41078139.83	41078139.92	41078140.02	0.1696	0.0893
Earth	107756-10-03 16:18 G	41078407.03	41078407.18	41078407.33	0.1644	0.0995
Moon	107756-10-03 17:15 G	41078407.09	41078407.22	41078407.34	0.1644	0.1173 *
Mercury	107765-06-01 21:06 G	41081570.26	41081570.38	41081570.49	0.1704	0.0254
Venus	107771-05-26 23:30 G	41083755.35	41083755.48	41083755.61	0.1579	0.1025
Mercury	107774-10-23 07:54 G	41085000.72	41085000.83	41085000.94	0.1711	0.0396
Mercury	107775-11-24 16:32 G	41085398.11	41085398.19	41085398.26	0.1846	0.1637
Mercury	107784-03-14 18:27 G	41088431.19	41088431.27	41088431.36	0.1718	0.1064
Mercury	107785-04-15 10:18 G	41088827.76	41088827.93	41088828.10	0.1836	0.0060
Mercury	107786-02-17 23:15 G	41089136.44	41089136.47	41089136.50	0.1689	0.1600
Mercury	107794-09-05 04:47 G	41092257.63	41092257.70	41092257.77	0.1827	0.1654
Mercury	107795-07-11 10:03 G	41092566.83	41092566.92	41092567.02	0.1696	0.0973
Venus	107802-06-20 10:32 G	41095101.83	41095101.94	41095102.04	0.1964	0.1565
Venus	107803-05-26 15:35 G	41095442.00	41095442.15	41095442.30	0.1577	0.0796
Mercury	107804-12-01 21:06 G	41095997.26	41095997.38	41095997.49	0.1703	0.0337
Mercury	107814-04-24 07:54 G	41099427.71	41099427.83	41099427.94	0.1711	0.0325
Mercury	107815-05-26 17:15 G	41099825.19	41099825.22	41099825.25	0.1846	0.1803
Mercury	107823-09-14 18:27 G	41102858.18	41102858.27	41102858.37	0.1718	0.0982

Mercury	107824-10-15 11:15 G	41103254.80	41103254.97	41103255.14	0.1837	0.0138
Mercury	107825-08-19 23:15 G	41103563.46	41103563.47	41103563.47	0.1689	0.1679
Mercury	107833-02-04 05:15 G	41106288.69	41106288.72	41106288.75	0.1726	0.1656
Mercury	107834-03-07 05:44 G	41106684.64	41106684.74	41106684.83	0.1827	0.1485
Mercury	107835-01-10 10:03 G	41106993.83	41106993.92	41106994.01	0.1696	0.1054
Venus	107837-03-24 11:59 G	41107797.89	41107798.00	41107798.12	0.1580	0.1203
Mercury	107844-06-01 21:06 G	41110424.27	41110424.38	41110424.49	0.1703	0.0420
Mercury	107853-10-23 07:39 G	41113854.71	41113854.82	41113854.94	0.1710	0.0245
Mercury	107863-03-15 18:27 G	41117285.17	41117285.27	41117285.37	0.1718	0.0900
Mercury	107864-04-15 12:27 G	41117681.85	41117682.02	41117682.18	0.1837	0.0321
Venus	107869-03-23 04:18 G	41119484.52	41119484.68	41119484.84	0.1577	0.0626
Mercury	107872-08-05 05:15 G	41120715.67	41120715.72	41120715.76	0.1726	0.1580
Mercury	107873-09-05 06:27 G	41121111.66	41121111.77	41121111.89	0.1827	0.1325
Mercury	107874-07-11 10:03 G	41121420.84	41121420.92	41121421.00	0.1696	0.1135
Mercury	107883-12-01 20:51 G	41124851.26	41124851.37	41124851.48	0.1703	0.0498
Moon	107889-03-31 16:18 G	41126798.01	41126798.18	41126798.36	0.1907	0.0525
Earth	107889-03-31 19:54 G	41126798.13	41126798.33	41126798.53	0.1907	0.0248 *
Mercury	107893-04-23 07:39 G	41128281.71	41128281.82	41128281.94	0.1710	0.0160
Mercury	107902-09-14 18:27 G	41131712.17	41131712.27	41131712.37	0.1718	0.0814
Venus	107903-01-21 00:56 G	41131840.45	41131840.54	41131840.62	0.1581	0.1380
Mercury	107903-10-16 12:56 G	41132108.88	41132109.04	41132109.20	0.1837	0.0465
Mercury	107912-02-05 05:01 G	41135142.66	41135142.71	41135142.77	0.1725	0.1498
Mercury	107913-03-07 07:39 G	41135538.69	41135538.82	41135538.95	0.1828	0.1145
Mercury	107914-01-10 10:03 G	41135847.84	41135847.92	41135848.00	0.1696	0.1218
Mercury	107923-06-02 20:51 G	41139278.26	41139278.37	41139278.48	0.1703	0.0579
Mercury	107932-10-23 07:39 G	41142708.71	41142708.82	41142708.94	0.1710	0.0077
Venus	107935-01-19 17:01 G	41143527.04	41143527.21	41143527.38	0.1578	0.0450
Mercury	107942-03-15 18:27 G	41146139.16	41146139.27	41146139.37	0.1718	0.0739
Mercury	107943-04-16 14:08 G	41146535.93	41146536.09	41146536.25	0.1838	0.0658
Mercury	107951-08-06 05:15 G	41149569.65	41149569.72	41149569.78	0.1725	0.1409

Mercury	107952-09-05 08:23 G	41149965.71	41149965.85	41149965.99	0.1828	0.0987
Mercury	107953-07-11 10:03 G	41150274.84	41150274.92	41150274.99	0.1696	0.1301
Earth	107961-10-04 13:39 G	41153281.88	41153282.07	41153282.26	0.1635	0.0120
Moon	107961-10-04 16:18 G	41153281.97	41153282.18	41153282.38	0.1635	0.0105 *
Mercury	107962-12-01 20:51 G	41153705.27	41153705.37	41153705.48	0.1703	0.0669
Venus	107966-02-12 17:15 G	41154874.09	41154874.22	41154874.34	0.1965	0.1275
Venus	107968-11-17 13:25 G	41155883.04	41155883.06	41155883.09	0.1582	0.1562
Mercury	107972-04-23 07:39 G	41157135.70	41157135.82	41157135.93	0.1710	0.0015
Mercury	107981-09-13 18:27 G	41160566.16	41160566.27	41160566.37	0.1717	0.0651
Mercury	107982-10-15 15:06 G	41160962.98	41160963.13	41160963.28	0.1838	0.0833
Mercury	107991-02-04 05:01 G	41163996.64	41163996.71	41163996.78	0.1725	0.1333
Mercury	107992-03-06 09:20 G	41164392.74	41164392.89	41164393.04	0.1828	0.0811
Mercury	107993-01-09 10:03 G	41164701.85	41164701.92	41164701.98	0.1695	0.1384
Venus	108000-11-16 05:59 G	41167569.57	41167569.75	41167569.92	0.1579	0.0284

109TH MILLENNIUM CE

This is a list of transits visible from Mars in the 109th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	108002-06-01 20:51 G	41168132.27	41168132.37	41168132.47	0.1703	0.0743		
Mercury	108011-10-23 07:39 G	41171562.71	41171562.82	41171562.93	0.1710	0.0098		
Mercury	108021-03-14 18:27 G	41174993.16	41174993.27	41174993.38	0.1717	0.0569		
Mercury	108022-04-15 15:49 G	41175390.02	41175390.16	41175390.30	0.1838	0.0989		
Mercury	108030-08-05 05:01 G	41178423.63	41178423.71	41178423.79	0.1725	0.1248		

Mercury	108031-09-05 10:18 G	41178819.77	41178819.93	41178820.09	0.1828	0.0637
Venus	108031-12-10 19:25 G	41178916.15	41178916.31	41178916.48	0.1964	0.0455
Mercury	108032-07-10 09:49 G	41179128.86	41179128.91	41179128.97	0.1695	0.1467
Mercury	108041-11-30 20:51 G	41182559.27	41182559.37	41182559.47	0.1702	0.0829
Mercury	108051-04-23 07:39 G	41185989.70	41185989.82	41185989.93	0.1710	0.0181
Mercury	108060-09-12 18:13 G	41189420.15	41189420.26	41189420.37	0.1717	0.0490
Mercury	108061-10-14 16:47 G	41189817.08	41189817.20	41189817.33	0.1838	0.1180
Venus	108066-09-13 18:13 G	41191612.08	41191612.26	41191612.44	0.1580	0.0100
Mercury	108070-02-03 05:01 G	41192850.63	41192850.71	41192850.80	0.1725	0.1161
Mercury	108071-03-06 11:15 G	41193246.80	41193246.97	41193247.13	0.1828	0.0473
Mercury	108072-01-09 09:49 G	41193555.87	41193555.91	41193555.96	0.1695	0.1550
Mercury	108081-05-31 20:51 G	41196986.27	41196986.37	41196986.47	0.1702	0.0914
Mercury	108090-10-22 07:25 G	41200416.70	41200416.81	41200416.93	0.1709	0.0270
Venus	108097-10-06 21:35 G	41202958.23	41202958.40	41202958.57	0.1963	0.0374
Mercury	108100-03-14 18:13 G	41203847.15	41203847.26	41203847.38	0.1717	0.0407
Mercury	108101-04-15 17:59 G	41204244.14	41204244.25	41204244.36	0.1839	0.1360
Mercury	108109-08-05 05:01 G	41207277.62	41207277.71	41207277.80	0.1725	0.1084
Mercury	108110-09-05 11:59 G	41207673.84	41207674.00	41207674.17	0.1829	0.0306
Mercury	108111-07-11 09:49 G	41207982.88	41207982.91	41207982.94	0.1695	0.1631
Mercury	108120-11-30 20:37 G	41211413.27	41211413.36	41211413.46	0.1702	0.0995
Mercury	108130-04-23 07:39 G	41214843.70	41214843.82	41214843.93	0.1709	0.0352
Venus	108132-07-12 07:11 G	41215654.62	41215654.80	41215654.98	0.1581	0.0070
Mercury	108139-09-13 18:13 G	41218274.15	41218274.26	41218274.38	0.1717	0.0322
Mercury	108140-10-14 18:27 G	41218671.18	41218671.27	41218671.37	0.1839	0.1508
Mercury	108149-02-03 05:01 G	41221704.61	41221704.71	41221704.80	0.1724	0.1002
Mercury	108150-03-06 13:11 G	41222100.88	41222101.05	41222101.22	0.1829	0.0116
Mercury	108158-06-26 15:20 G	41225135.12	41225135.14	41225135.17	0.1732	0.1693
Mercury	108159-07-27 07:39 G	41225530.77	41225530.82	41225530.87	0.1819	0.1727
Mercury	108160-05-31 20:37 G	41225840.27	41225840.36	41225840.45	0.1702	0.1079
Venus	108163-08-04 23:44 G	41227000.36	41227000.49	41227000.63	0.1961	0.1195

Moon	108166-10-04 07:11 G	41228156.72	41228156.80	41228156.89	0.1626	0.1438
Earth	108166-10-04 14:08 G	41228156.96	41228157.09	41228157.23	0.1627	0.1129
Mercury	108169-10-22 07:25 G	41229270.70	41229270.81	41229270.92	0.1709	0.0431
Earth	108173-04-02 03:49 G	41230528.52	41230528.66	41230528.80	0.1916	0.1324
Moon	108173-04-02 06:13 G	41230528.57	41230528.76	41230528.95	0.1916	0.0919 *
Mercury	108179-03-14 18:13 G	41232701.15	41232701.26	41232701.37	0.1717	0.0237
Mercury	108180-04-14 19:39 G	41233098.26	41233098.32	41233098.38	0.1839	0.1710
Mercury	108188-08-04 05:01 G	41236131.61	41236131.71	41236131.80	0.1724	0.0910
Mercury	108189-09-04 13:54 G	41236527.91	41236528.08	41236528.25	0.1829	0.0039
Mercury	108197-12-25 15:20 G	41239562.10	41239562.14	41239562.18	0.1732	0.1608
Venus	108198-05-09 19:39 G	41239697.15	41239697.32	41239697.50	0.1582	0.0255
Mercury	108199-01-25 08:37 G	41239957.77	41239957.86	41239957.94	0.1820	0.1565
Mercury	108199-11-30 20:37 G	41240267.28	41240267.36	41240267.45	0.1702	0.1168
Mercury	108209-04-23 07:25 G	41243697.70	41243697.81	41243697.92	0.1709	0.0510
Mercury	108218-09-13 18:13 G	41247128.15	41247128.26	41247128.38	0.1716	0.0151
Mercury	108228-02-04 04:47 G	41250558.60	41250558.70	41250558.80	0.1724	0.0833
Mercury	108229-03-06 14:51 G	41250954.95	41250955.12	41250955.29	0.1830	0.0223
Mercury	108237-06-26 15:20 G	41253989.09	41253989.14	41253989.20	0.1732	0.1523
Mercury	108238-07-27 09:35 G	41254384.79	41254384.90	41254385.01	0.1820	0.1385
Mercury	108239-06-01 20:37 G	41254694.28	41254694.36	41254694.44	0.1702	0.1243
Moon	108245-10-07 10:18 G	41257013.74	41257013.93	41257014.11	0.1630	0.0370
Earth	108245-10-07 17:15 G	41257014.04	41257014.22	41257014.40	0.1630	0.0582 *
Mercury	108248-10-22 07:25 G	41258124.71	41258124.81	41258124.92	0.1709	0.0601
Mercury	108258-03-14 18:13 G	41261555.14	41261555.26	41261555.37	0.1716	0.0067
Venus	108264-03-07 08:08 G	41263739.67	41263739.84	41263740.01	0.1583	0.0436
Mercury	108267-08-05 04:47 G	41264985.60	41264985.70	41264985.81	0.1724	0.0747
Mercury	108268-09-04 15:49 G	41265382.00	41265382.16	41265382.33	0.1830	0.0402
Mercury	108276-12-25 15:20 G	41268416.08	41268416.14	41268416.20	0.1732	0.1440
Mercury	108278-01-25 10:32 G	41268811.81	41268811.94	41268812.06	0.1820	0.1218
Mercury	108278-11-30 20:37 G	41269121.29	41269121.36	41269121.43	0.1701	0.1330

Mercury	108288-04-22 07:25 G	41272551.70	41272551.81	41272551.91	0.1709	0.0679
Venus	108296-03-06 00:42 G	41275426.46	41275426.53	41275426.61	0.1579	0.1410
Mercury	108297-09-12 18:13 G	41275982.14	41275982.26	41275982.37	0.1716	0.0033
Mercury	108307-02-04 04:47 G	41279412.60	41279412.70	41279412.81	0.1724	0.0660
Mercury	108308-03-06 16:47 G	41279809.03	41279809.20	41279809.36	0.1830	0.0563
Mercury	108316-06-26 15:20 G	41282843.07	41282843.14	41282843.21	0.1731	0.1356
Mercury	108317-07-27 11:15 G	41283238.83	41283238.97	41283239.11	0.1821	0.1059
Mercury	108318-06-01 20:37 G	41283548.30	41283548.36	41283548.42	0.1701	0.1416
Venus	108327-03-31 06:27 G	41286772.68	41286772.77	41286772.86	0.1963	0.1636
Mercury	108327-10-23 07:25 G	41286978.70	41286978.81	41286978.91	0.1708	0.0766
Venus	108330-01-03 21:06 G	41287782.21	41287782.38	41287782.54	0.1583	0.0613
Mercury	108337-03-14 18:13 G	41290409.14	41290409.26	41290409.37	0.1716	0.0117
Mercury	108346-08-05 04:47 G	41293839.59	41293839.70	41293839.81	0.1724	0.0580
Mercury	108347-09-05 17:30 G	41294236.08	41294236.23	41294236.39	0.1830	0.0738
Mercury	108355-12-26 15:20 G	41297270.06	41297270.14	41297270.22	0.1731	0.1269
Mercury	108357-01-25 12:27 G	41297665.87	41297666.02	41297666.17	0.1821	0.0871
Mercury	108357-11-30 20:23 G	41297975.30	41297975.35	41297975.41	0.1701	0.1498
Venus	108362-01-02 13:25 G	41299468.95	41299469.06	41299469.17	0.1580	0.1233
Mercury	108367-04-23 07:25 G	41301405.71	41301405.81	41301405.91	0.1708	0.0853
Mercury	108376-09-12 18:13 G	41304836.14	41304836.26	41304836.37	0.1716	0.0194
Mercury	108386-02-03 04:47 G	41308266.59	41308266.70	41308266.81	0.1723	0.0497
Mercury	108387-03-06 18:42 G	41308663.14	41308663.28	41308663.43	0.1831	0.0930
Venus	108393-01-25 08:23 G	41310814.69	41310814.85	41310815.01	0.1961	0.0793
Mercury	108395-06-26 15:20 G	41311697.06	41311697.14	41311697.22	0.1731	0.1187
Venus	108395-11-01 09:20 G	41311824.74	41311824.89	41311825.05	0.1585	0.0803
Mercury	108396-07-26 13:11 G	41312092.89	41312093.05	41312093.21	0.1821	0.0711
Mercury	108397-05-31 20:23 G	41312402.31	41312402.35	41312402.39	0.1701	0.1582
Mercury	108406-10-22 07:11 G	41315832.71	41315832.80	41315832.90	0.1708	0.0934
Mercury	108416-03-13 17:59 G	41319263.14	41319263.25	41319263.37	0.1716	0.0271
Mercury	108425-08-04 04:47 G	41322693.59	41322693.70	41322693.81	0.1723	0.0404

Mercury	108426-09-04 19:25 G	41323090.17	41323090.31	41323090.44	0.1831	0.1081
Venus	108427-10-31 02:08 G	41323511.46	41323511.59	41323511.72	0.1581	0.1058
Mercury	108434-12-25 15:20 G	41326124.05	41326124.14	41326124.22	0.1731	0.1104
Mercury	108436-01-25 13:54 G	41326519.92	41326520.08	41326520.25	0.1821	0.0545
Mercury	108436-11-29 20:23 G	41326829.34	41326829.35	41326829.37	0.1701	0.1670
Mercury	108446-04-22 07:11 G	41330259.71	41330259.80	41330259.89	0.1708	0.1016
Moon	108450-10-07 11:59 G	41331888.84	41331889.00	41331889.17	0.1622	0.0649
Earth	108450-10-07 18:13 G	41331889.08	41331889.26	41331889.45	0.1622	0.0412 *
Mercury	108455-09-12 17:59 G	41333690.14	41333690.25	41333690.37	0.1715	0.0360
Venus	108458-11-22 11:01 G	41334856.79	41334856.96	41334857.13	0.1960	0.0041
Venus	108461-08-28 22:03 G	41335867.28	41335867.42	41335867.56	0.1586	0.0986
Mercury	108465-02-02 04:32 G	41337120.58	41337120.69	41337120.81	0.1723	0.0330
Mercury	108466-03-05 20:23 G	41337517.23	41337517.35	41337517.47	0.1831	0.1267
Mercury	108474-06-25 15:20 G	41340551.04	41340551.14	41340551.23	0.1731	0.1017
Mercury	108475-07-26 15:06 G	41340946.96	41340947.13	41340947.29	0.1821	0.0363
Mercury	108483-11-16 01:39 G	41343981.56	41343981.57	41343981.59	0.1738	0.1722
Mercury	108485-10-21 07:11 G	41344686.72	41344686.80	41344686.89	0.1708	0.1108
Venus	108493-08-27 14:23 G	41347553.96	41347554.10	41347554.25	0.1582	0.0873
Mercury	108495-03-13 17:59 G	41348117.14	41348117.25	41348117.36	0.1715	0.0440
Mercury	108504-08-04 04:32 G	41351547.58	41351547.69	41351547.81	0.1723	0.0241
Mercury	108505-09-04 21:20 G	41351944.29	41351944.39	41351944.50	0.1832	0.1450
Mercury	108513-12-25 15:06 G	41354978.04	41354978.13	41354978.23	0.1731	0.0934
Mercury	108515-01-25 15:49 G	41355374.00	41355374.16	41355374.33	0.1822	0.0198
Mercury	108523-05-18 01:39 G	41358408.54	41358408.57	41358408.60	0.1739	0.1641
Mercury	108524-06-16 10:47 G	41358803.93	41358803.95	41358803.98	0.1812	0.1780
Venus	108524-09-19 13:11 G	41358898.90	41358899.05	41358899.21	0.1958	0.0830
Mercury	108525-04-22 07:11 G	41359113.72	41359113.80	41359113.88	0.1708	0.1185
Venus	108527-06-27 10:32 G	41359909.82	41359909.94	41359910.05	0.1587	0.1176
Moon	108529-10-10 15:35 G	41360746.05	41360746.15	41360746.25	0.1626	0.1333
Earth	108529-10-10 21:06 G	41360746.27	41360746.38	41360746.50	0.1626	0.1278

Mercury	108534-09-12 17:59 G	41362544.14	41362544.25	41362544.36	0.1715	0.0526
Moon	108536-04-07 18:27 G	41363117.14	41363117.27	41363117.41	0.1918	0.1477
Mercury	108544-02-03 04:32 G	41365974.58	41365974.69	41365974.81	0.1723	0.0160
Mercury	108545-03-05 22:03 G	41366371.34	41366371.42	41366371.50	0.1832	0.1611
Mercury	108553-06-25 15:06 G	41369405.03	41369405.13	41369405.23	0.1730	0.0849
Mercury	108554-07-26 16:47 G	41369801.03	41369801.20	41369801.37	0.1822	0.0038
Venus	108559-06-26 03:20 G	41371596.48	41371596.64	41371596.80	0.1583	0.0700
Mercury	108562-11-16 01:39 G	41372835.52	41372835.57	41372835.62	0.1738	0.1553
Mercury	108563-12-16 11:59 G	41373230.92	41373231.00	41373231.07	0.1812	0.1603
Mercury	108564-10-21 07:11 G	41373540.72	41373540.80	41373540.87	0.1707	0.1272
Mercury	108574-03-13 17:59 G	41376971.14	41376971.25	41376971.35	0.1715	0.0610
Mercury	108583-08-04 04:32 G	41380401.57	41380401.69	41380401.80	0.1723	0.0079
Mercury	108584-09-03 23:01 G	41380798.43	41380798.46	41380798.49	0.1832	0.1792
Venus	108590-07-17 15:49 G	41382941.07	41382941.16	41382941.25	0.1956	0.1637
Mercury	108592-12-24 15:06 G	41383832.03	41383832.13	41383832.24	0.1730	0.0760
Venus	108593-04-23 23:01 G	41383952.37	41383952.46	41383952.55	0.1588	0.1361
Mercury	108594-01-24 17:44 G	41384228.07	41384228.24	41384228.41	0.1822	0.0160
Mercury	108602-05-18 01:39 G	41387262.51	41387262.57	41387262.63	0.1738	0.1467
Mercury	108603-06-17 12:27 G	41387657.92	41387658.02	41387658.12	0.1812	0.1462
Mercury	108604-04-22 07:11 G	41387967.73	41387967.80	41387967.87	0.1707	0.1360
Mercury	108613-09-12 17:59 G	41391398.14	41391398.25	41391398.35	0.1715	0.0699
Mercury	108623-02-03 04:32 G	41394828.57	41394828.69	41394828.80	0.1722	0.0046
Venus	108625-04-23 15:35 G	41395638.98	41395639.15	41395639.32	0.1584	0.0511
Mercury	108632-06-25 15:06 G	41398259.02	41398259.13	41398259.23	0.1730	0.0678
Mercury	108633-07-26 18:27 G	41398655.10	41398655.27	41398655.44	0.1822	0.0319
Mercury	108641-11-16 01:39 G	41401689.50	41401689.57	41401689.63	0.1738	0.1386
Mercury	108642-12-16 13:39 G	41402084.95	41402085.07	41402085.19	0.1813	0.1271
Mercury	108643-10-22 06:56 G	41402394.73	41402394.79	41402394.85	0.1707	0.1442
Mercury	108653-03-13 17:44 G	41405825.14	41405825.24	41405825.34	0.1715	0.0781
Moon	108655-10-08 13:11 G	41406764.00	41406764.05	41406764.09	0.1615	0.1562

Earth	108655-10-08 19:25 G	41406764.21	41406764.31	41406764.41	0.1615	0.1371
Venus	108659-02-20 11:01 G	41407994.93	41407994.96	41407994.99	0.1590	0.1562
Mercury	108662-08-04 04:32 G	41409255.57	41409255.69	41409255.80	0.1722	0.0108
Mercury	108671-12-25 15:06 G	41412686.02	41412686.13	41412686.23	0.1730	0.0594
Mercury	108673-01-24 19:25 G	41413082.15	41413082.31	41413082.48	0.1823	0.0496
Mercury	108681-05-17 01:25 G	41416116.49	41416116.56	41416116.64	0.1738	0.1300
Mercury	108682-06-16 14:37 G	41416511.97	41416512.11	41416512.24	0.1813	0.1100
Mercury	108683-04-22 06:56 G	41416821.74	41416821.79	41416821.84	0.1707	0.1525
Venus	108688-05-14 18:42 G	41418671.26	41418671.28	41418671.31	0.1960	0.1935
Venus	108691-02-19 04:03 G	41419681.49	41419681.67	41419681.84	0.1586	0.0327
Mercury	108692-09-11 17:44 G	41420252.14	41420252.24	41420252.34	0.1714	0.0868
Mercury	108702-02-03 04:18 G	41423682.57	41423682.68	41423682.80	0.1722	0.0187
Mercury	108711-06-26 15:06 G	41427113.02	41427113.13	41427113.24	0.1730	0.0505
Mercury	108712-07-26 20:23 G	41427509.19	41427509.35	41427509.51	0.1823	0.0673
Mercury	108720-11-16 01:25 G	41430543.48	41430543.56	41430543.65	0.1737	0.1212
Mercury	108721-12-16 15:06 G	41430938.99	41430939.13	41430939.28	0.1813	0.0949
Mercury	108722-10-22 06:56 G	41431248.76	41431248.79	41431248.83	0.1707	0.1618
Mercury	108732-03-13 17:44 G	41434679.14	41434679.24	41434679.33	0.1714	0.0950
Moon	108734-10-11 15:35 G	41435620.97	41435621.15	41435621.33	0.1618	0.0395
Earth	108734-10-11 22:18 G	41435621.24	41435621.43	41435621.61	0.1618	0.0286 *
Mercury	108741-08-04 04:18 G	41438109.57	41438109.68	41438109.80	0.1722	0.0273
Mercury	108750-12-25 14:51 G	41441540.01	41441540.12	41441540.24	0.1730	0.0426
Mercury	108752-01-25 21:20 G	41441936.24	41441936.39	41441936.54	0.1823	0.0845
Venus	108754-03-12 21:49 G	41442713.27	41442713.41	41442713.55	0.1958	0.1148
Venus	108756-12-17 16:32 G	41443724.01	41443724.19	41443724.37	0.1587	0.0142
Mercury	108760-05-17 01:25 G	41444970.47	41444970.56	41444970.65	0.1738	0.1129
Mercury	108761-06-16 16:18 G	41445366.02	41445366.18	41445366.33	0.1814	0.0766
Mercury	108762-04-22 06:56 G	41445675.78	41445675.79	41445675.80	0.1707	0.1695
Mercury	108771-09-12 17:44 G	41449106.15	41449106.24	41449106.33	0.1714	0.1039
Mercury	108781-02-02 04:18 G	41452536.57	41452536.68	41452536.79	0.1722	0.0363

Mercury	108790-06-25 14:51 G	41455967.01	41455967.12	41455967.23	0.1729	0.0337
Mercury	108791-07-26 22:03 G	41456363.28	41456363.42	41456363.56	0.1824	0.1016
Mercury	108799-11-16 01:25 G	41459397.47	41459397.56	41459397.65	0.1737	0.1040
Mercury	108800-12-15 17:15 G	41459793.06	41459793.22	41459793.38	0.1814	0.0589
Mercury	108811-03-13 17:30 G	41463533.15	41463533.23	41463533.32	0.1714	0.1122
Venus	108820-01-07 23:44 G	41466755.32	41466755.49	41466755.66	0.1956	0.0311
Moon	108820-04-08 19:25 G	41466847.10	41466847.31	41466847.52	0.1927	0.0221
Earth	108820-04-09 03:20 G	41466847.46	41466847.64	41466847.83	0.1926	0.0708 *
Mercury	108820-08-03 04:18 G	41466963.57	41466963.68	41466963.79	0.1722	0.0444
Venus	108822-10-15 04:47 G	41467766.52	41467766.70	41467766.87	0.1588	0.0064
Mercury	108829-12-24 14:51 G	41470394.01	41470394.12	41470394.24	0.1729	0.0248
Mercury	108831-01-24 23:01 G	41470790.33	41470790.46	41470790.59	0.1824	0.1197
Mercury	108839-05-17 01:25 G	41473824.46	41473824.56	41473824.65	0.1737	0.0954
Mercury	108840-06-15 17:44 G	41474220.07	41474220.24	41474220.40	0.1814	0.0442
Mercury	108848-10-06 11:44 G	41477254.96	41477254.99	41477255.02	0.1745	0.1677
Mercury	108850-09-11 17:30 G	41477960.15	41477960.23	41477960.31	0.1714	0.1210
Mercury	108860-02-02 04:18 G	41481390.57	41481390.68	41481390.79	0.1721	0.0532
Mercury	108869-06-24 14:51 G	41484821.00	41484821.12	41484821.23	0.1729	0.0165
Mercury	108870-07-25 23:44 G	41485217.38	41485217.49	41485217.61	0.1824	0.1364
Mercury	108878-11-15 01:25 G	41488251.46	41488251.56	41488251.65	0.1737	0.0871
Mercury	108879-12-15 18:56 G	41488647.12	41488647.29	41488647.46	0.1814	0.0248
Venus	108885-11-04 02:51 G	41490797.45	41490797.62	41490797.78	0.1954	0.0477
Mercury	108888-04-06 11:44 G	41491681.95	41491681.99	41491682.04	0.1745	0.1588
Venus	108888-08-11 17:15 G	41491809.04	41491809.22	41491809.40	0.1589	0.0244
Mercury	108890-03-12 17:30 G	41492387.16	41492387.23	41492387.30	0.1714	0.1294
Mercury	108899-08-03 04:18 G	41495817.57	41495817.68	41495817.78	0.1721	0.0621
Mercury	108908-12-24 14:51 G	41499248.00	41499248.12	41499248.23	0.1729	0.0091
Mercury	108910-01-25 00:42 G	41499644.45	41499644.53	41499644.62	0.1825	0.1548
Mercury	108918-05-17 01:11 G	41502678.45	41502678.55	41502678.66	0.1737	0.0785
Mercury	108919-06-16 19:39 G	41503074.15	41503074.32	41503074.49	0.1814	0.0082

Mercury	108927-10-07 11:44 G	41506108.93	41506108.99	41506109.04	0.1745	0.1507
Mercury	108928-11-05 14:37 G	41506504.05	41506504.11	41506504.18	0.1805	0.1668
Mercury	108929-09-11 17:30 G	41506814.16	41506814.23	41506814.30	0.1713	0.1380
Mercury	108939-02-02 04:03 G	41510244.57	41510244.67	41510244.78	0.1721	0.0700
Moon	108939-10-11 22:18 G	41510496.27	41510496.43	41510496.59	0.1611	0.0674
Earth	108939-10-11 23:59 G	41510496.33	41510496.50	41510496.67	0.1611	0.0661 *
Mercury	108948-06-24 14:51 G	41513675.00	41513675.12	41513675.23	0.1729	0.0042
Mercury	108949-07-26 01:39 G	41514071.52	41514071.57	41514071.62	0.1824	0.1720
Venus	108951-09-02 05:01 G	41514839.59	41514839.71	41514839.84	0.1951	0.1284
Venus	108954-06-10 05:30 G	41515851.56	41515851.73	41515851.90	0.1591	0.0442
Mercury	108957-11-15 01:11 G	41517105.45	41517105.55	41517105.66	0.1736	0.0696
Mercury	108958-12-15 20:23 G	41517501.18	41517501.35	41517501.52	0.1815	0.0079
Mercury	108967-04-07 11:44 G	41520535.92	41520535.99	41520536.05	0.1745	0.1422
Mercury	108968-05-06 15:35 G	41520931.06	41520931.15	41520931.25	0.1805	0.1490
Mercury	108969-03-12 17:30 G	41521241.17	41521241.23	41521241.28	0.1713	0.1465
Mercury	108978-08-03 04:03 G	41524671.57	41524671.67	41524671.77	0.1721	0.0788
Venus	108986-06-08 22:32 G	41527538.37	41527538.44	41527538.51	0.1586	0.1452
Mercury	108987-12-24 14:37 G	41528102.00	41528102.11	41528102.23	0.1729	0.0111
Mercury	108997-05-16 01:11 G	41531532.44	41531532.55	41531532.66	0.1737	0.0611
Mercury	108998-06-15 21:20 G	41531928.22	41531928.39	41531928.56	0.1815	0.0267

110TH MILLENNIUM CE

This is a list of transits visible from Mars in the 110th millennium CE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Mercury 109006-10-07 11:44 G 41534962.92 41534962.99 41534963.06 0.1744 0.1326

Mercury 109007-11-06 16:18 G 41535358.07 41535358.18 41535358.30 0.1805 0.1335

Mercury 109008-09-11 17:15 G 41535668.18 41535668.22 41535668.27 0.1713 0.1556

Mercury 109018-02-02 04:03 G 41539098.57 41539098.67 41539098.77 0.1721 0.0878

Earth 109018-10-15 01:54 G 41539353.43 41539353.58 41539353.73 0.1614 0.0975

Moon 109018-10-15 02:51 G 41539353.50 41539353.62 41539353.74 0.1614 0.1175 *

Venus 109020-04-07 17:44 G 41539894.08 41539894.24 41539894.40 0.1592 0.0634

Mercury 109027-06-25 14:37 G 41542529.00 41542529.11 41542529.22 0.1728 0.0181

Mercury 109036-11-15 01:11 G 41545959.44 41545959.55 41545959.66 0.1736 0.0522

Mercury 109037-12-15 22:18 G 41546355.27 41546355.43 41546355.60 0.1815 0.0443

Mercury 109046-04-07 11:30 G 41549389.90 41549389.98 41549390.06 0.1744 0.1248

Mercury 109047-05-07 17:15 G 41549785.09 41549785.22 41549785.35 0.1805 0.1160

Mercury 109048-03-12 17:15 G 41550095.19 41550095.22 41550095.25 0.1713 0.1637

Venus 109052-04-06 10:32 G 41551580.84 41551580.94 41551581.05 0.1587 0.1258

Mercury 109057-08-03 04:03 G 41553525.57 41553525.67 41553525.76 0.1721 0.0962

Mercury 109066-12-24 14:37 G 41556956.00 41556956.11 41556956.23 0.1728 0.0277

Mercury 109076-05-16 01:11 G 41560386.44 41560386.55 41560386.66 0.1736 0.0438

Mercury 109077-06-15 23:01 G 41560782.30 41560782.46 41560782.62 0.1815 0.0597

Mercury 109085-10-06 11:30 G 41563816.90 41563816.98 41563817.07 0.1744 0.1157

Venus 109086-02-03 05:44 G 41563936.59 41563936.74 41563936.89 0.1594 0.0837

Mercury 109086-11-05 18:13 G 41564212.12 41564212.26 41564212.41 0.1806 0.0981

Mercury 109097-02-01 04:03 G 41567952.58 41567952.67 41567952.76 0.1720 0.1051

Moon 109104-04-10 20:37 G 41570577.21 41570577.36 41570577.52 0.1935 0.1057

Earth 109104-04-11 04:47 G 41570577.51 41570577.70 41570577.88 0.1934 0.0741 *

Mercury 109106-06-25 14:37 G 41571382.99 41571383.11 41571383.22 0.1728 0.0359

Venus 109115-04-28 10:03 G 41574611.81 41574611.92 41574612.03 0.1954 0.1439

Mercury 109115-11-16 01:11 G 41574813.43 41574813.55 41574813.66 0.1736 0.0354

Mercury 109116-12-15 23:59 G 41575209.35 41575209.50 41575209.66 0.1816 0.0793

Venus 109118-02-02 23:01 G 41575623.33 41575623.46 41575623.59 0.1589 0.1072

Mercury	109125-04-07 11:30 G	41578243.89	41578243.98	41578244.07	0.1744	0.1067
Mercury	109126-05-07 18:56 G	41578639.14	41578639.29	41578639.44	0.1806	0.0828
Mercury	109136-08-03 03:49 G	41582379.58	41582379.66	41582379.75	0.1720	0.1141
Moon	109144-10-11 23:59 G	41585371.45	41585371.50	41585371.55	0.1605	0.1540
Earth	109144-10-12 02:51 G	41585371.59	41585371.62	41585371.66	0.1605	0.1566
Mercury	109145-12-24 14:37 G	41585809.99	41585810.11	41585810.22	0.1728	0.0450
Venus	109151-12-02 18:13 G	41587979.12	41587979.26	41587979.39	0.1595	0.1032
Mercury	109155-05-17 00:56 G	41589240.43	41589240.54	41589240.66	0.1736	0.0265
Mercury	109156-06-16 00:56 G	41589636.39	41589636.54	41589636.68	0.1816	0.0961
Mercury	109164-10-06 11:30 G	41592670.88	41592670.98	41592671.07	0.1744	0.0984
Mercury	109165-11-05 19:54 G	41593066.17	41593066.33	41593066.49	0.1806	0.0649
Mercury	109174-02-26 21:49 G	41596101.39	41596101.41	41596101.43	0.1752	0.1718
Mercury	109176-02-02 03:49 G	41596806.58	41596806.66	41596806.74	0.1720	0.1222
Venus	109181-02-22 13:25 G	41598653.90	41598654.06	41598654.22	0.1952	0.0664
Venus	109183-12-01 11:30 G	41599665.83	41599665.98	41599666.12	0.1590	0.0879
Mercury	109185-06-24 14:37 G	41600237.00	41600237.11	41600237.22	0.1728	0.0539
Mercury	109194-11-15 00:56 G	41603667.43	41603667.54	41603667.66	0.1735	0.0173
Mercury	109195-12-16 01:39 G	41604063.43	41604063.57	41604063.70	0.1816	0.1124
Mercury	109204-04-06 11:30 G	41607097.88	41607097.98	41607098.07	0.1744	0.0897
Mercury	109205-05-06 20:51 G	41607493.21	41607493.37	41607493.54	0.1807	0.0466
Mercury	109213-08-27 21:49 G	41610528.37	41610528.41	41610528.45	0.1752	0.1632
Mercury	109215-08-03 03:49 G	41611233.59	41611233.66	41611233.73	0.1720	0.1311
Venus	109217-09-29 05:58 G	41612021.64	41612021.75	41612021.86	0.1597	0.1244
Moon	109223-10-15 01:54 G	41614228.40	41614228.58	41614228.76	0.1608	0.0193
Earth	109223-10-15 04:46 G	41614228.51	41614228.70	41614228.89	0.1608	0.0050 *
Mercury	109224-12-23 14:22 G	41614663.99	41614664.10	41614664.21	0.1728	0.0618
Mercury	109234-05-16 00:56 G	41618094.42	41618094.54	41618094.65	0.1736	0.0085
Mercury	109235-06-16 02:37 G	41618490.49	41618490.61	41618490.73	0.1816	0.1315
Mercury	109243-10-06 11:30 G	41621524.88	41621524.98	41621525.08	0.1743	0.0801
Mercury	109244-11-04 21:34 G	41621920.23	41621920.40	41621920.56	0.1807	0.0315

Venus	109246-12-20 15:34 G	41622695.98	41622696.15	41622696.32	0.1949	0.0157
Venus	109249-09-27 23:30 G	41623708.32	41623708.48	41623708.64	0.1592	0.0682
Mercury	109253-02-25 21:34 G	41624955.35	41624955.40	41624955.46	0.1752	0.1548
Mercury	109255-02-01 03:49 G	41625660.59	41625660.66	41625660.72	0.1720	0.1400
Mercury	109264-06-23 14:22 G	41629090.99	41629091.10	41629091.20	0.1728	0.0707
Mercury	109273-11-14 00:56 G	41632521.42	41632521.54	41632521.65	0.1735	0.0029
Mercury	109274-12-15 03:34 G	41632917.55	41632917.65	41632917.74	0.1817	0.1492
Mercury	109283-04-06 11:15 G	41635951.87	41635951.97	41635952.08	0.1743	0.0722
Venus	109283-07-27 18:13 G	41636064.18	41636064.26	41636064.33	0.1599	0.1447
Mercury	109284-05-05 22:32 G	41636347.27	41636347.44	41636347.61	0.1807	0.0130
Mercury	109292-08-26 21:49 G	41639382.34	41639382.41	41639382.47	0.1751	0.1452
Mercury	109293-09-25 17:58 G	41639777.20	41639777.25	41639777.30	0.1797	0.1696
Mercury	109294-08-02 03:34 G	41640087.60	41640087.65	41640087.71	0.1720	0.1486
Mercury	109303-12-24 14:22 G	41643518.00	41643518.10	41643518.20	0.1727	0.0801
Venus	109312-10-17 18:42 G	41646738.13	41646738.28	41646738.43	0.1947	0.0922
Mercury	109313-05-16 00:56 G	41646948.42	41646948.54	41646948.65	0.1735	0.0110
Mercury	109314-06-16 04:03 G	41647344.61	41647344.67	41647344.74	0.1817	0.1653
Venus	109315-07-27 11:58 G	41647750.83	41647751.00	41647751.17	0.1593	0.0491
Mercury	109322-10-06 11:15 G	41650378.87	41650378.97	41650379.08	0.1743	0.0629
Mercury	109323-11-05 23:30 G	41650774.31	41650774.48	41650774.65	0.1807	0.0052
Mercury	109332-02-26 21:34 G	41653809.33	41653809.40	41653809.47	0.1751	0.1370
Mercury	109333-03-27 18:42 G	41654204.20	41654204.28	41654204.37	0.1797	0.1527
Mercury	109334-02-01 03:34 G	41654514.61	41654514.65	41654514.70	0.1719	0.1576
Mercury	109343-06-24 14:08 G	41657945.00	41657945.09	41657945.19	0.1727	0.0885
Mercury	109352-11-14 00:42 G	41661375.42	41661375.53	41661375.65	0.1735	0.0196
Mercury	109362-04-06 11:15 G	41664805.86	41664805.97	41664806.08	0.1743	0.0539
Mercury	109363-05-07 00:13 G	41665201.34	41665201.51	41665201.67	0.1807	0.0212
Mercury	109371-08-27 21:34 G	41668236.32	41668236.40	41668236.48	0.1751	0.1278
Mercury	109372-09-25 19:39 G	41668631.21	41668631.32	41668631.43	0.1798	0.1359
Mercury	109373-08-02 03:34 G	41668941.63	41668941.65	41668941.68	0.1719	0.1665

Venus	109378-08-14 21:34 G	41670780.32	41670780.40	41670780.48	0.1944	0.1702
Venus	109381-05-24 00:13 G	41671793.33	41671793.51	41671793.68	0.1595	0.0290
Mercury	109382-12-23 14:08 G	41672372.00	41672372.09	41672372.19	0.1727	0.0975
Mercury	109392-05-15 00:42 G	41675802.42	41675802.53	41675802.65	0.1735	0.0272
Mercury	109401-10-06 11:15 G	41679232.86	41679232.97	41679233.08	0.1743	0.0452
Mercury	109402-11-06 01:10 G	41679628.38	41679628.55	41679628.71	0.1808	0.0394
Mercury	109411-02-26 21:34 G	41682663.32	41682663.40	41682663.48	0.1751	0.1186
Mercury	109412-03-27 20:37 G	41683058.23	41683058.36	41683058.49	0.1798	0.1180
Mercury	109422-06-24 14:08 G	41686799.00	41686799.09	41686799.18	0.1727	0.1068
Earth	109428-10-15 08:22 G	41689103.69	41689103.85	41689104.01	0.1602	0.0836
Moon	109428-10-15 15:20 G	41689103.97	41689104.14	41689104.30	0.1602	0.0761 *
Mercury	109431-11-15 00:42 G	41690229.42	41690229.53	41690229.64	0.1734	0.0360
Mercury	109441-04-06 11:15 G	41693659.86	41693659.97	41693660.08	0.1743	0.0363
Mercury	109442-05-07 02:08 G	41694055.43	41694055.59	41694055.75	0.1808	0.0581
Venus	109447-03-22 12:27 G	41695835.84	41695836.02	41695836.19	0.1596	0.0104
Mercury	109450-08-27 21:34 G	41697090.31	41697090.40	41697090.49	0.1751	0.1099
Mercury	109451-09-26 21:20 G	41697485.25	41697485.39	41697485.53	0.1798	0.1019
Mercury	109461-12-23 14:08 G	41701226.01	41701226.09	41701226.17	0.1727	0.1150
Mercury	109471-05-16 00:42 G	41704656.42	41704656.53	41704656.64	0.1735	0.0450
Venus	109476-06-11 23:44 G	41706510.43	41706510.49	41706510.56	0.1950	0.1796
Mercury	109480-10-05 11:15 G	41708086.86	41708086.97	41708087.08	0.1742	0.0266
Mercury	109481-11-05 02:37 G	41708482.46	41708482.61	41708482.77	0.1808	0.0734
Mercury	109490-02-25 21:20 G	41711517.30	41711517.39	41711517.49	0.1750	0.1014
Mercury	109491-03-27 22:18 G	41711912.28	41711912.43	41711912.58	0.1799	0.0839
Mercury	109501-06-24 14:08 G	41715653.01	41715653.09	41715653.17	0.1727	0.1241
Earth	109507-10-19 10:03 G	41717960.76	41717960.92	41717961.09	0.1605	0.0766
Moon	109507-10-19 13:25 G	41717960.89	41717961.06	41717961.22	0.1605	0.0906 *
Mercury	109510-11-15 00:42 G	41719083.42	41719083.53	41719083.64	0.1734	0.0540
Venus	109513-01-18 00:27 G	41719878.34	41719878.52	41719878.70	0.1598	0.0113
Mercury	109520-04-06 11:01 G	41722513.85	41722513.96	41722514.08	0.1742	0.0189

Mercury	109521-05-07 03:49 G	41722909.51	41722909.66	41722909.81	0.1809	0.0925
Mercury	109529-08-27 21:34 G	41725944.30	41725944.40	41725944.50	0.1750	0.0913
Mercury	109530-09-26 23:01 G	41726339.31	41726339.46	41726339.62	0.1798	0.0670
Mercury	109539-01-18 07:39 G	41729374.79	41729374.82	41729374.85	0.1758	0.1673
Mercury	109540-12-23 14:08 G	41730080.02	41730080.09	41730080.16	0.1726	0.1336
Venus	109542-04-10 02:22 G	41730552.46	41730552.60	41730552.75	0.1947	0.0996
Mercury	109550-05-16 00:42 G	41733510.42	41733510.53	41733510.63	0.1734	0.0630
Mercury	109559-10-06 11:01 G	41736940.85	41736940.96	41736941.08	0.1742	0.0113
Mercury	109560-11-05 04:46 G	41737336.57	41737336.70	41737336.83	0.1809	0.1110
Mercury	109569-02-25 21:20 G	41740371.29	41740371.39	41740371.49	0.1750	0.0832
Mercury	109570-03-27 23:58 G	41740766.34	41740766.50	41740766.67	0.1799	0.0494
Mercury	109578-07-19 07:39 G	41743801.77	41743801.82	41743801.87	0.1759	0.1584
Venus	109578-11-15 12:27 G	41743920.85	41743921.02	41743921.20	0.1600	0.0311
Mercury	109580-06-23 13:54 G	41744507.02	41744507.08	41744507.15	0.1726	0.1419
Mercury	109589-11-14 00:42 G	41747937.42	41747937.53	41747937.63	0.1734	0.0723
Mercury	109599-04-06 11:01 G	41751367.85	41751367.96	41751368.08	0.1742	0.0058
Mercury	109600-05-06 05:30 G	41751763.61	41751763.73	41751763.85	0.1809	0.1269
Venus	109608-02-05 05:58 G	41754594.58	41754594.75	41754594.92	0.1945	0.0237
Mercury	109608-08-26 21:20 G	41754798.29	41754798.39	41754798.50	0.1750	0.0738
Mercury	109609-09-26 00:56 G	41755193.37	41755193.54	41755193.71	0.1799	0.0318
Mercury	109618-01-17 07:39 G	41758228.76	41758228.82	41758228.88	0.1758	0.1492
Mercury	109619-12-23 13:54 G	41758934.03	41758934.08	41758934.14	0.1726	0.1511
Mercury	109629-05-15 00:27 G	41762364.42	41762364.52	41762364.63	0.1734	0.0811
Mercury	109638-10-05 11:01 G	41765794.85	41765794.96	41765795.08	0.1742	0.0090
Mercury	109639-11-05 06:27 G	41766190.67	41766190.77	41766190.87	0.1809	0.1462
Venus	109644-09-12 00:13 G	41767963.35	41767963.51	41767963.68	0.1601	0.0525
Mercury	109648-02-25 21:20 G	41769225.29	41769225.39	41769225.50	0.1750	0.0645
Mercury	109649-03-27 01:54 G	41769620.41	41769620.58	41769620.75	0.1799	0.0144
Mercury	109657-07-18 07:39 G	41772655.75	41772655.82	41772655.89	0.1758	0.1401
Mercury	109658-08-16 21:20 G	41773050.34	41773050.39	41773050.44	0.1790	0.1703

Mercury	109659-06-23 13:54 G	41773361.05	41773361.08	41773361.12	0.1726	0.1607
Mercury	109668-11-13 00:27 G	41776791.43	41776791.52	41776791.62	0.1733	0.0901
Venus	109673-12-02 08:51 G	41778636.70	41778636.87	41778637.03	0.1941	0.0553
Venus	109676-09-10 18:27 G	41779650.19	41779650.27	41779650.35	0.1596	0.1426
Mercury	109678-04-05 11:01 G	41780221.85	41780221.96	41780222.07	0.1741	0.0181
Mercury	109679-05-06 07:25 G	41780617.75	41780617.81	41780617.88	0.1810	0.1651
Mercury	109687-08-26 21:20 G	41783652.28	41783652.39	41783652.50	0.1749	0.0556
Mercury	109688-09-25 02:37 G	41784047.44	41784047.61	41784047.78	0.1800	0.0028
Mercury	109697-01-16 07:39 G	41787082.74	41787082.82	41787082.89	0.1758	0.1309
Mercury	109698-02-14 22:32 G	41787477.35	41787477.44	41787477.53	0.1790	0.1508
Mercury	109698-12-22 13:54 G	41787788.06	41787788.08	41787788.10	0.1726	0.1690
Mercury	109708-05-15 00:27 G	41791218.43	41791218.52	41791218.62	0.1734	0.0995
Venus	109710-07-11 12:27 G	41792005.86	41792006.02	41792006.18	0.1603	0.0727
Moon	109712-10-18 10:03 G	41792835.74	41792835.92	41792836.10	0.1599	0.0317
Earth	109712-10-18 14:51 G	41792835.93	41792836.12	41792836.31	0.1599	0.0091 *
Mercury	109717-10-05 11:01 G	41794648.85	41794648.96	41794649.07	0.1741	0.0278
Mercury	109718-11-05 08:08 G	41795044.83	41795044.84	41795044.85	0.1810	0.1804
Mercury	109727-02-25 21:20 G	41798079.28	41798079.39	41798079.50	0.1749	0.0467
Mercury	109728-03-27 03:34 G	41798474.48	41798474.65	41798474.82	0.1800	0.0220
Mercury	109736-07-18 07:39 G	41801509.74	41801509.82	41801509.90	0.1758	0.1217
Mercury	109737-08-16 23:15 G	41801904.36	41801904.47	41801904.59	0.1790	0.1341
Venus	109739-09-30 12:27 G	41802678.89	41802679.02	41802679.15	0.1939	0.1287
Venus	109742-07-10 06:56 G	41803692.68	41803692.79	41803692.90	0.1597	0.1237
Mercury	109747-11-14 00:27 G	41805645.43	41805645.52	41805645.61	0.1733	0.1083
Moon	109751-04-17 19:25 G	41806896.14	41806896.31	41806896.48	0.1943	0.0653
Earth	109751-04-18 00:13 G	41806896.34	41806896.51	41806896.67	0.1943	0.1108 *
Mercury	109757-04-05 11:01 G	41809075.84	41809075.96	41809076.07	0.1741	0.0368
Mercury	109766-08-26 21:20 G	41812506.28	41812506.39	41812506.50	0.1749	0.0365
Mercury	109767-09-26 04:32 G	41812901.52	41812901.69	41812901.85	0.1800	0.0389
Mercury	109776-01-17 07:39 G	41815936.73	41815936.82	41815936.90	0.1757	0.1125

Venus	109776-05-08 00:27 G	41816048.38	41816048.52	41816048.66	0.1605	0.0941
Mercury	109777-02-14 23:58 G	41816331.38	41816331.50	41816331.63	0.1791	0.1181
Mercury	109787-05-15 00:27 G	41820072.44	41820072.52	41820072.60	0.1733	0.1172
Earth	109791-10-21 16:18 G	41821693.12	41821693.18	41821693.25	0.1601	0.1507
Moon	109791-10-21 17:30 G	41821693.13	41821693.23	41821693.33	0.1601	0.1322 *
Mercury	109796-10-04 11:01 G	41823502.85	41823502.96	41823503.07	0.1741	0.0462
Mercury	109806-02-25 21:20 G	41826933.27	41826933.39	41826933.50	0.1749	0.0288
Mercury	109807-03-28 05:15 G	41827328.56	41827328.72	41827328.89	0.1801	0.0568
Venus	109808-05-07 18:56 G	41827735.15	41827735.29	41827735.42	0.1599	0.1033
Mercury	109815-07-19 07:25 G	41830363.72	41830363.81	41830363.91	0.1757	0.1036
Mercury	109816-08-17 01:10 G	41830758.41	41830758.55	41830758.69	0.1791	0.0992
Mercury	109826-11-14 00:27 G	41834499.44	41834499.52	41834499.60	0.1733	0.1270
Mercury	109836-04-05 11:01 G	41837929.85	41837929.96	41837930.06	0.1741	0.0554
Venus	109842-03-06 12:13 G	41840090.89	41840091.01	41840091.13	0.1607	0.1157
Mercury	109845-08-26 21:06 G	41841360.27	41841360.38	41841360.50	0.1749	0.0201
Mercury	109846-09-26 06:13 G	41841755.61	41841755.76	41841755.92	0.1801	0.0748
Mercury	109855-01-17 07:39 G	41844790.72	41844790.82	41844790.91	0.1757	0.0941
Mercury	109856-02-16 02:08 G	41845185.44	41845185.59	41845185.74	0.1791	0.0816
Mercury	109864-06-08 17:30 G	41848221.21	41848221.23	41848221.26	0.1765	0.1717
Mercury	109866-05-15 00:27 G	41848926.45	41848926.52	41848926.59	0.1733	0.1357
Venus	109874-03-05 07:10 G	41851777.65	41851777.80	41851777.95	0.1601	0.0837
Mercury	109875-10-05 10:46 G	41852356.85	41852356.95	41852357.06	0.1741	0.0642
Mercury	109885-02-24 21:20 G	41855787.27	41855787.39	41855787.50	0.1749	0.0101
Mercury	109886-03-27 07:10 G	41856182.65	41856182.80	41856182.94	0.1801	0.0925
Mercury	109894-07-18 07:25 G	41859217.71	41859217.81	41859217.91	0.1757	0.0849
Mercury	109895-08-17 02:37 G	41859612.46	41859612.61	41859612.77	0.1791	0.0659
Venus	109903-05-26 17:15 G	41862451.10	41862451.22	41862451.34	0.1943	0.1401
Mercury	109903-12-09 17:44 G	41862648.19	41862648.24	41862648.28	0.1765	0.1619
Mercury	109905-11-14 00:27 G	41863353.46	41863353.52	41863353.58	0.1732	0.1451
Venus	109908-01-03 00:27 G	41864133.43	41864133.52	41864133.61	0.1609	0.1368

Mercury	109915-04-06 10:46 G	41866783.85	41866783.95	41866784.05	0.1740	0.0733
Earth	109917-10-19 20:08 G	41867711.18	41867711.34	41867711.49	0.1594	0.0922
Moon	109917-10-20 02:37 G	41867711.43	41867711.61	41867711.78	0.1594	0.0629 *
Mercury	109924-08-26 21:06 G	41870214.27	41870214.38	41870214.50	0.1748	0.0050
Mercury	109925-09-26 07:54 G	41870609.70	41870609.83	41870609.97	0.1801	0.1100
Mercury	109934-01-17 07:25 G	41873644.71	41873644.81	41873644.92	0.1757	0.0754
Mercury	109935-02-16 03:49 G	41874039.50	41874039.66	41874039.83	0.1792	0.0461
Venus	109940-01-01 19:10 G	41875820.13	41875820.30	41875820.46	0.1602	0.0631
Mercury	109943-06-09 17:44 G	41877075.18	41877075.24	41877075.29	0.1765	0.1522
Mercury	109945-05-15 00:27 G	41877780.47	41877780.52	41877780.56	0.1732	0.1546
Mercury	109954-10-05 10:46 G	41881210.85	41881210.95	41881211.05	0.1740	0.0831
Mercury	109964-02-25 21:06 G	41884641.27	41884641.38	41884641.50	0.1748	0.0091
Mercury	109965-03-27 09:06 G	41885036.76	41885036.88	41885037.00	0.1802	0.1296
Venus	109969-03-22 20:37 G	41886493.19	41886493.36	41886493.52	0.1940	0.0632
Mercury	109973-07-18 07:25 G	41888071.71	41888071.81	41888071.92	0.1756	0.0662
Venus	109973-10-30 11:58 G	41888175.98	41888176.00	41888176.02	0.1611	0.1596
Mercury	109974-08-17 04:46 G	41888466.53	41888466.70	41888466.86	0.1792	0.0295
Mercury	109982-12-08 17:30 G	41891502.17	41891502.23	41891502.30	0.1765	0.1435
Mercury	109984-11-13 00:13 G	41892207.48	41892207.51	41892207.55	0.1732	0.1635
Mercury	109994-04-05 10:46 G	41895637.85	41895637.95	41895638.04	0.1740	0.0918
Earth	109996-10-21 21:34 G	41896568.23	41896568.40	41896568.57	0.1596	0.0662
Moon	109996-10-22 00:13 G	41896568.34	41896568.51	41896568.68	0.1596	0.0851 *

111TH MILLENNIUM CE

This is a list of transits visible from Mars in the 111th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	110003-08-26 21:20	G	41899068.27	41899068.39	41899068.50	0.1748	0.0203	
Mercury	110004-09-25 09:49	G	41899463.81	41899463.91	41899464.01	0.1802	0.1462	
Venus	110005-10-29 06:56	G	41899862.62	41899862.79	41899862.96	0.1604	0.0425	
Mercury	110013-01-16 07:25	G	41902498.70	41902498.81	41902498.92	0.1756	0.0568	
Mercury	110014-02-15 05:30	G	41902893.56	41902893.73	41902893.90	0.1792	0.0129	
Mercury	110022-06-08 17:30	G	41905929.16	41905929.23	41905929.31	0.1765	0.1339	
Mercury	110023-07-08 01:39	G	41906323.51	41906323.57	41906323.63	0.1783	0.1641	
Mercury	110024-05-14 00:13	G	41906634.50	41906634.51	41906634.52	0.1732	0.1725	
Mercury	110033-10-04 10:46	G	41910064.86	41910064.95	41910065.04	0.1740	0.1014	
Venus	110035-01-18 00:13	G	41910535.34	41910535.51	41910535.68	0.1936	0.0116	
Moon	110035-04-18 18:27	G	41910626.05	41910626.27	41910626.49	0.1950	0.0327	
Earth	110035-04-18 23:44	G	41910626.30	41910626.49	41910626.69	0.1949	0.0498	*
Mercury	110043-02-24 21:06	G	41913495.27	41913495.38	41913495.49	0.1748	0.0275	
Mercury	110044-03-26 10:46	G	41913890.88	41913890.95	41913891.01	0.1802	0.1647	
Mercury	110052-07-17 07:25	G	41916925.70	41916925.81	41916925.92	0.1756	0.0473	
Mercury	110053-08-16 06:27	G	41917320.60	41917320.77	41917320.94	0.1792	0.0069	
Mercury	110061-12-07 17:30	G	41920356.15	41920356.23	41920356.32	0.1764	0.1241	
Mercury	110063-01-06 02:22	G	41920750.51	41920750.60	41920750.69	0.1783	0.1484	
Venus	110071-08-26 18:42	G	41923905.11	41923905.28	41923905.46	0.1606	0.0209	
Mercury	110073-04-04 10:46	G	41924491.86	41924491.95	41924492.04	0.1739	0.1106	
Mercury	110082-08-25 21:06	G	41927922.27	41927922.38	41927922.49	0.1748	0.0371	
Mercury	110092-01-16 07:25	G	41931352.70	41931352.81	41931352.92	0.1756	0.0380	
Mercury	110093-02-14 07:25	G	41931747.64	41931747.81	41931747.98	0.1793	0.0244	
Venus	110100-11-15 03:34	G	41934577.50	41934577.65	41934577.80	0.1933	0.0870	
Mercury	110101-06-08 17:30	G	41934783.14	41934783.23	41934783.32	0.1764	0.1153	
Mercury	110102-07-08 03:20	G	41935177.52	41935177.64	41935177.75	0.1783	0.1302	
Mercury	110112-10-04 10:32	G	41938918.86	41938918.94	41938919.03	0.1740	0.1201	

Mercury	110122-02-24 21:06 G	41942349.27	41942349.38	41942349.49	0.1747	0.0470
Mercury	110131-07-18 07:25 G	41945779.69	41945779.81	41945779.92	0.1756	0.0289
Mercury	110132-08-16 08:08 G	41946174.67	41946174.84	41946175.00	0.1793	0.0409
Venus	110137-06-24 06:56 G	41947947.61	41947947.79	41947947.96	0.1608	0.0033
Mercury	110140-12-07 17:30 G	41949210.14	41949210.23	41949210.32	0.1764	0.1055
Mercury	110142-01-06 04:18 G	41949604.55	41949604.68	41949604.81	0.1784	0.1118
Mercury	110152-04-04 10:32 G	41953345.87	41953345.94	41953346.02	0.1739	0.1292
Mercury	110161-08-25 21:06 G	41956776.27	41956776.38	41956776.49	0.1747	0.0559
Venus	110166-09-12 07:25 G	41958619.72	41958619.81	41958619.91	0.1930	0.1585
Mercury	110171-01-16 07:25 G	41960206.69	41960206.81	41960206.92	0.1756	0.0191
Mercury	110172-02-15 09:06 G	41960601.72	41960601.88	41960602.04	0.1793	0.0607
Mercury	110180-06-07 17:30 G	41963637.14	41963637.23	41963637.33	0.1764	0.0959
Mercury	110181-07-07 04:46 G	41964031.56	41964031.70	41964031.85	0.1784	0.0967
Mercury	110189-10-29 03:34 G	41967067.64	41967067.65	41967067.66	0.1772	0.1749
Mercury	110191-10-04 10:32 G	41967772.88	41967772.94	41967773.01	0.1739	0.1388
Mercury	110201-02-24 21:06 G	41971203.27	41971203.38	41971203.48	0.1747	0.0654
Moon	110201-10-23 01:39 G	41971443.40	41971443.57	41971443.75	0.1592	0.0362
Earth	110201-10-23 03:34 G	41971443.46	41971443.65	41971443.84	0.1592	0.0152 *
Venus	110203-04-22 18:27 G	41971990.09	41971990.27	41971990.45	0.1610	0.0223
Mercury	110210-07-18 07:25 G	41974633.69	41974633.81	41974633.92	0.1755	0.0121
Mercury	110211-08-17 10:03 G	41975028.76	41975028.92	41975029.07	0.1793	0.0776
Mercury	110219-12-08 17:30 G	41978064.13	41978064.23	41978064.33	0.1764	0.0869
Mercury	110221-01-06 05:58 G	41978458.60	41978458.75	41978458.90	0.1784	0.0774
Mercury	110229-04-30 03:34 G	41981494.61	41981494.65	41981494.69	0.1772	0.1650
Mercury	110231-04-05 10:32 G	41982199.88	41982199.94	41982200.00	0.1739	0.1477
Mercury	110240-08-25 21:06 G	41985630.27	41985630.38	41985630.48	0.1747	0.0751
Mercury	110250-01-16 07:10 G	41989060.69	41989060.80	41989060.92	0.1755	0.0066
Mercury	110251-02-15 10:46 G	41989455.81	41989455.95	41989456.09	0.1794	0.0951
Mercury	110259-06-08 17:30 G	41992491.12	41992491.23	41992491.33	0.1763	0.0774
Mercury	110260-07-07 06:56 G	41992885.63	41992885.79	41992885.95	0.1784	0.0594

Venus	110264-07-10 08:22 G	41994349.79	41994349.85	41994349.91	0.1938	0.1810
Mercury	110268-10-29 03:34 G	41995921.60	41995921.65	41995921.70	0.1772	0.1560
Venus	110269-02-17 06:13 G	41996032.59	41996032.76	41996032.93	0.1612	0.0443
Mercury	110270-10-04 10:32 G	41996626.89	41996626.94	41996626.99	0.1739	0.1573
Mercury	110280-02-24 20:51 G	42000057.27	42000057.37	42000057.47	0.1747	0.0837
Earth	110280-10-25 04:46 G	42000300.61	42000300.70	42000300.78	0.1594	0.1413
Moon	110280-10-25 10:03 G	42000300.82	42000300.92	42000301.01	0.1594	0.1348
Mercury	110289-07-17 07:10 G	42003487.69	42003487.80	42003487.92	0.1755	0.0107
Mercury	110290-08-16 11:44 G	42003882.86	42003882.99	42003883.12	0.1794	0.1142
Mercury	110298-12-07 17:30 G	42006918.12	42006918.23	42006918.34	0.1763	0.0674
Mercury	110300-01-06 07:25 G	42007312.65	42007312.81	42007312.98	0.1784	0.0439
Venus	110301-02-17 01:39 G	42007719.54	42007719.57	42007719.60	0.1605	0.1579
Mercury	110308-04-30 03:34 G	42010348.58	42010348.65	42010348.71	0.1772	0.1468
Mercury	110310-04-05 10:32 G	42011053.91	42011053.94	42011053.97	0.1738	0.1664
Mercury	110319-08-26 20:51 G	42014484.28	42014484.37	42014484.47	0.1747	0.0934
Mercury	110329-01-16 07:10 G	42017914.69	42017914.80	42017914.92	0.1755	0.0187
Mercury	110330-02-15 12:42 G	42018309.92	42018310.03	42018310.14	0.1794	0.1319
Venus	110330-05-08 11:44 G	42018391.85	42018391.99	42018392.13	0.1934	0.1058
Venus	110334-12-16 18:13 G	42020075.10	42020075.26	42020075.42	0.1614	0.0661
Mercury	110338-06-08 17:15 G	42021345.12	42021345.22	42021345.33	0.1763	0.0589
Mercury	110339-07-08 08:37 G	42021739.69	42021739.86	42021740.02	0.1785	0.0254
Mercury	110347-10-30 03:34 G	42024775.58	42024775.65	42024775.72	0.1771	0.1363
Mercury	110348-11-27 04:46 G	42025169.69	42025169.70	42025169.71	0.1775	0.1767
Mercury	110359-02-24 20:51 G	42028911.28	42028911.37	42028911.47	0.1746	0.1034
Venus	110366-12-15 13:10 G	42031761.96	42031762.05	42031762.14	0.1608	0.1365
Mercury	110368-07-17 07:10 G	42032341.69	42032341.80	42032341.91	0.1754	0.0277
Mercury	110369-08-16 13:25 G	42032736.97	42032737.06	42032737.15	0.1795	0.1489
Mercury	110377-12-07 17:15 G	42035772.11	42035772.22	42035772.33	0.1763	0.0492
Mercury	110379-01-06 09:34 G	42036166.73	42036166.90	42036167.07	0.1785	0.0066
Mercury	110387-04-30 03:20 G	42039202.57	42039202.64	42039202.72	0.1771	0.1280

Mercury	110388-05-28 05:30 G	42039596.66	42039596.73	42039596.81	0.1775	0.1599
Venus	110396-03-04 15:20 G	42042433.97	42042434.14	42042434.30	0.1931	0.0303
Mercury	110398-08-25 20:51 G	42043338.28	42043338.37	42043338.46	0.1746	0.1120
Venus	110400-10-13 05:30 G	42044117.58	42044117.73	42044117.87	0.1617	0.0898
Moon	110406-10-23 09:34 G	42046318.72	42046318.90	42046319.08	0.1587	0.0747
Earth	110406-10-23 10:18 G	42046318.78	42046318.93	42046319.08	0.1587	0.0938 *
Mercury	110408-01-16 07:10 G	42046768.69	42046768.80	42046768.91	0.1754	0.0377
Mercury	110409-02-14 14:22 G	42047164.05	42047164.10	42047164.16	0.1795	0.1685
Mercury	110417-06-07 17:15 G	42050199.11	42050199.22	42050199.34	0.1762	0.0398
Mercury	110418-07-07 10:03 G	42050593.75	42050593.92	42050594.09	0.1785	0.0090
Mercury	110426-10-29 03:20 G	42053629.56	42053629.64	42053629.73	0.1771	0.1181
Mercury	110427-11-27 06:27 G	42054023.67	42054023.77	42054023.87	0.1776	0.1420
Venus	110432-10-12 00:56 G	42055804.42	42055804.54	42055804.67	0.1610	0.1153
Mercury	110438-02-23 20:51 G	42057765.29	42057765.37	42057765.45	0.1746	0.1215
Mercury	110447-07-17 07:10 G	42061195.69	42061195.80	42061195.91	0.1754	0.0468
Mercury	110456-12-06 17:15 G	42064626.11	42064626.22	42064626.33	0.1763	0.0299
Mercury	110458-01-05 11:15 G	42065020.80	42065020.97	42065021.13	0.1786	0.0289
Venus	110461-12-30 19:10 G	42066476.13	42066476.30	42066476.47	0.1927	0.0426
Mercury	110466-04-29 03:34 G	42068056.56	42068056.65	42068056.74	0.1771	0.1081
Venus	110466-08-10 17:15 G	42068160.09	42068160.22	42068160.35	0.1619	0.1123
Mercury	110467-05-28 07:10 G	42068450.69	42068450.80	42068450.92	0.1776	0.1254
Mercury	110477-08-24 20:51 G	42072192.30	42072192.37	42072192.44	0.1746	0.1314
Moon	110485-10-25 04:32 G	42075175.52	42075175.69	42075175.86	0.1589	0.0708
Earth	110485-10-25 11:01 G	42075175.79	42075175.96	42075176.14	0.1589	0.0601 *
Mercury	110487-01-15 06:56 G	42075622.69	42075622.79	42075622.90	0.1754	0.0565
Mercury	110496-06-06 17:15 G	42079053.11	42079053.22	42079053.33	0.1762	0.0204
Mercury	110497-07-06 11:58 G	42079447.84	42079448.00	42079448.17	0.1786	0.0466
Venus	110498-08-09 12:27 G	42079846.88	42079847.02	42079847.17	0.1612	0.0930
Mercury	110505-10-29 03:20 G	42082483.55	42082483.64	42082483.74	0.1770	0.0991
Mercury	110506-11-27 08:08 G	42082877.71	42082877.84	42082877.97	0.1776	0.1079

Mercury	110517-02-23 20:37 G	42086619.30	42086619.36	42086619.43	0.1746	0.1402
Mercury	110526-07-17 06:56 G	42090049.69	42090049.79	42090049.90	0.1754	0.0664
Venus	110527-10-28 22:46 G	42090518.31	42090518.45	42090518.58	0.1923	0.1159
Venus	110532-06-08 04:32 G	42092202.60	42092202.69	42092202.79	0.1621	0.1364
Mercury	110535-12-07 17:15 G	42093480.11	42093480.22	42093480.34	0.1762	0.0106
Mercury	110537-01-05 12:42 G	42093874.87	42093875.03	42093875.19	0.1786	0.0625
Mercury	110545-04-29 03:20 G	42096910.54	42096910.64	42096910.74	0.1770	0.0895
Mercury	110546-05-28 09:06 G	42097304.73	42097304.88	42097305.02	0.1777	0.0900
Mercury	110554-09-19 13:25 G	42100341.03	42100341.06	42100341.09	0.1779	0.1696
Mercury	110556-08-24 20:37 G	42101046.31	42101046.36	42101046.42	0.1746	0.1499
Venus	110564-06-07 00:27 G	42103889.36	42103889.52	42103889.67	0.1614	0.0711
Mercury	110566-01-15 06:56 G	42104476.69	42104476.79	42104476.90	0.1754	0.0751
Mercury	110575-06-07 17:15 G	42107907.10	42107907.22	42107907.33	0.1762	0.0052
Mercury	110576-07-06 13:39 G	42108301.92	42108302.07	42108302.22	0.1786	0.0816
Mercury	110584-10-28 03:20 G	42111337.54	42111337.64	42111337.75	0.1770	0.0793
Mercury	110585-11-26 09:49 G	42111731.76	42111731.91	42111732.06	0.1777	0.0731
Venus	110593-08-25 03:06 G	42114560.59	42114560.63	42114560.67	0.1920	0.1852
Mercury	110594-03-20 13:10 G	42114768.01	42114768.05	42114768.10	0.1779	0.1605
Mercury	110596-02-23 20:37 G	42115473.32	42115473.36	42115473.41	0.1745	0.1598
Venus	110598-04-05 16:03 G	42116245.14	42116245.17	42116245.19	0.1624	0.1600
Mercury	110605-07-17 06:56 G	42118903.69	42118903.79	42118903.89	0.1753	0.0844
Mercury	110614-12-07 17:15 G	42122334.10	42122334.22	42122334.33	0.1762	0.0091
Mercury	110616-01-06 14:37 G	42122728.97	42122729.11	42122729.25	0.1787	0.1003
Mercury	110624-04-29 03:20 G	42125764.53	42125764.64	42125764.74	0.1770	0.0707
Mercury	110625-05-28 10:46 G	42126158.78	42126158.95	42126159.11	0.1777	0.0558
Venus	110630-04-05 11:44 G	42127931.82	42127931.99	42127932.16	0.1616	0.0479
Mercury	110633-09-19 13:25 G	42129195.00	42129195.06	42129195.11	0.1779	0.1504
Mercury	110635-08-25 20:37 G	42129900.33	42129900.36	42129900.38	0.1745	0.1685
Mercury	110645-01-15 06:56 G	42133330.69	42133330.79	42133330.89	0.1753	0.0946
Mercury	110654-06-07 17:15 G	42136761.10	42136761.22	42136761.33	0.1761	0.0188

Mercury	110655-07-07 15:06 G	42137156.01	42137156.13	42137156.26	0.1787	0.1160
Mercury	110663-10-29 03:20 G	42140191.53	42140191.64	42140191.75	0.1770	0.0607
Mercury	110664-11-26 11:30 G	42140585.82	42140585.98	42140586.15	0.1777	0.0377
Mercury	110673-03-20 13:10 G	42143621.98	42143622.05	42143622.12	0.1778	0.1412
Earth	110682-04-25 13:10 G	42146944.89	42146945.05	42146945.22	0.1956	0.1055
Moon	110682-04-25 21:34 G	42146945.27	42146945.40	42146945.52	0.1956	0.1424
Mercury	110684-07-16 06:56 G	42147757.69	42147757.79	42147757.88	0.1753	0.1036
Moon	110690-10-26 16:18 G	42150051.00	42150051.18	42150051.36	0.1585	0.0104
Earth	110690-10-26 17:01 G	42150051.03	42150051.21	42150051.40	0.1585	0.0197 *
Venus	110691-06-23 02:51 G	42150290.51	42150290.62	42150290.73	0.1929	0.1461
Mercury	110693-12-06 17:01 G	42151188.10	42151188.21	42151188.33	0.1761	0.0279
Mercury	110695-01-05 16:18 G	42151583.07	42151583.18	42151583.29	0.1787	0.1358
Venus	110696-01-31 23:15 G	42151974.30	42151974.47	42151974.65	0.1618	0.0254
Mercury	110703-04-30 03:20 G	42154618.53	42154618.64	42154618.75	0.1770	0.0508
Mercury	110704-05-28 12:13 G	42155012.84	42155013.01	42155013.18	0.1777	0.0212
Mercury	110712-09-19 13:10 G	42158048.98	42158049.05	42158049.13	0.1778	0.1313
Mercury	110713-10-18 08:37 G	42158442.83	42158442.86	42158442.90	0.1768	0.1718
Mercury	110724-01-16 06:42 G	42162184.70	42162184.78	42162184.87	0.1753	0.1132
Mercury	110733-06-07 17:01 G	42165615.10	42165615.21	42165615.32	0.1761	0.0369
Mercury	110734-07-07 17:01 G	42166010.13	42166010.21	42166010.30	0.1787	0.1535
Mercury	110742-10-29 03:06 G	42169045.52	42169045.63	42169045.75	0.1769	0.0420
Mercury	110743-11-27 13:10 G	42169439.88	42169440.05	42169440.22	0.1778	0.0030
Mercury	110752-03-20 13:10 G	42172475.97	42172476.05	42172476.13	0.1778	0.1216
Mercury	110753-04-18 09:49 G	42172869.83	42172869.91	42172869.99	0.1768	0.1530
Venus	110757-04-20 06:42 G	42174332.62	42174332.78	42174332.93	0.1925	0.0730
Venus	110761-11-29 10:46 G	42176016.77	42176016.95	42176017.13	0.1621	0.0022
Mercury	110763-07-17 06:42 G	42176611.70	42176611.78	42176611.86	0.1753	0.1232
Earth	110769-10-29 17:58 G	42178908.15	42178908.25	42178908.35	0.1587	0.1334
Moon	110769-10-29 21:49 G	42178908.40	42178908.41	42178908.42	0.1587	0.1583
Mercury	110772-12-06 17:01 G	42180042.10	42180042.21	42180042.32	0.1761	0.0467

Mercury	110774-01-05 17:44 G	42180437.19	42180437.24	42180437.29	0.1788	0.1701
Mercury	110782-04-29 03:06 G	42183472.52	42183472.63	42183472.74	0.1769	0.0321
Mercury	110783-05-28 14:08 G	42183866.92	42183867.09	42183867.26	0.1778	0.0154
Mercury	110791-09-19 13:10 G	42186902.96	42186903.05	42186903.14	0.1778	0.1120
Mercury	110792-10-17 10:32 G	42187296.83	42187296.94	42187297.04	0.1768	0.1367
Mercury	110803-01-15 06:42 G	42191038.71	42191038.78	42191038.85	0.1752	0.1320
Mercury	110812-06-06 17:01 G	42194469.10	42194469.21	42194469.32	0.1761	0.0560
Mercury	110821-10-28 03:06 G	42197899.52	42197899.63	42197899.75	0.1769	0.0226
Mercury	110822-11-26 14:51 G	42198293.95	42198294.12	42198294.28	0.1778	0.0321
Venus	110823-02-15 10:18 G	42198374.76	42198374.93	42198375.10	0.1921	0.0030
Venus	110827-09-26 22:03 G	42200059.24	42200059.42	42200059.59	0.1623	0.0227
Mercury	110831-03-20 13:10 G	42201329.95	42201330.05	42201330.14	0.1777	0.1030
Mercury	110832-04-17 11:15 G	42201723.85	42201723.97	42201724.09	0.1769	0.1198
Mercury	110842-07-16 06:42 G	42205465.71	42205465.78	42205465.84	0.1752	0.1415
Mercury	110851-12-06 17:01 G	42208896.10	42208896.21	42208896.31	0.1760	0.0658
Mercury	110861-04-28 03:06 G	42212326.51	42212326.63	42212326.74	0.1769	0.0136
Mercury	110862-05-27 15:34 G	42212720.99	42212721.15	42212721.32	0.1778	0.0501
Mercury	110870-09-18 13:10 G	42215756.95	42215757.05	42215757.15	0.1777	0.0924
Mercury	110871-10-17 12:13 G	42216150.87	42216151.01	42216151.14	0.1769	0.1019
Mercury	110880-02-08 23:01 G	42219187.44	42219187.46	42219187.48	0.1786	0.1749
Mercury	110882-01-14 06:42 G	42219892.72	42219892.78	42219892.83	0.1752	0.1518
Venus	110888-12-12 14:37 G	42222416.95	42222417.11	42222417.26	0.1917	0.0718
Mercury	110891-06-06 17:01 G	42223323.10	42223323.21	42223323.31	0.1760	0.0754
Venus	110893-07-24 09:34 G	42224101.73	42224101.90	42224102.07	0.1625	0.0456
Earth	110895-10-27 00:13 G	42224926.36	42224926.51	42224926.66	0.1582	0.0960
Moon	110895-10-27 06:13 G	42224926.62	42224926.76	42224926.90	0.1582	0.1092 *
Mercury	110900-10-28 03:06 G	42226753.51	42226753.63	42226753.74	0.1769	0.0049
Mercury	110901-11-26 16:32 G	42227148.04	42227148.19	42227148.35	0.1779	0.0686
Mercury	110910-03-20 12:56 G	42230183.94	42230184.04	42230184.15	0.1777	0.0835
Mercury	110911-04-18 12:56 G	42230577.89	42230578.04	42230578.19	0.1769	0.0845

Mercury	110919-08-10 23:01 G	42233614.42	42233614.46	42233614.50	0.1786	0.1658
Mercury	110921-07-16 06:27 G	42234319.73	42234319.77	42234319.82	0.1752	0.1607
Mercury	110930-12-06 16:46 G	42237750.10	42237750.20	42237750.30	0.1760	0.0851
Mercury	110940-04-28 03:06 G	42241180.51	42241180.63	42241180.74	0.1768	0.0074
Mercury	110941-05-27 17:15 G	42241575.07	42241575.22	42241575.37	0.1779	0.0850
Mercury	110949-09-18 12:56 G	42244610.94	42244611.04	42244611.15	0.1777	0.0734
Mercury	110950-10-17 13:39 G	42245004.91	42245005.07	42245005.23	0.1770	0.0679
Venus	110954-10-10 18:27 G	42246459.15	42246459.27	42246459.38	0.1913	0.1428
Mercury	110959-02-08 23:01 G	42248041.40	42248041.46	42248041.51	0.1785	0.1557
Venus	110959-05-22 20:37 G	42248144.20	42248144.36	42248144.52	0.1628	0.0706
Mercury	110961-01-14 06:27 G	42248746.75	42248746.77	42248746.80	0.1752	0.1704
Moon	110966-04-25 23:01 G	42250674.27	42250674.46	42250674.65	0.1961	0.0853
Earth	110966-04-26 08:08 G	42250674.66	42250674.84	42250675.02	0.1961	0.0857
Mercury	110970-06-06 16:46 G	42252177.11	42252177.20	42252177.30	0.1760	0.0946
Earth	110974-10-29 23:58 G	42253783.33	42253783.50	42253783.68	0.1583	0.0547
Moon	110974-10-30 02:37 G	42253783.42	42253783.61	42253783.81	0.1584	0.0454 *
Mercury	110979-10-28 02:51 G	42255607.51	42255607.62	42255607.74	0.1768	0.0168
Mercury	110980-11-25 18:13 G	42256002.12	42256002.26	42256002.40	0.1779	0.1037
Mercury	110989-03-19 12:56 G	42259037.94	42259038.04	42259038.15	0.1777	0.0635
Mercury	110990-04-17 14:37 G	42259431.95	42259432.11	42259432.27	0.1770	0.0492
Venus	110991-05-21 17:01 G	42259831.12	42259831.21	42259831.29	0.1620	0.1403
Mercury	110998-08-09 23:01 G	42262468.39	42262468.46	42262468.52	0.1785	0.1458

112TH MILLENNIUM CE

This is a list of transits visible from Mars in the 112th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT							
	TIME							
Mercury	111009-12-06 16:46	G	42266604.11	42266604.20	42266604.29	0.1760	0.1043	
Mercury	111019-04-29 02:51	G	42270034.51	42270034.62	42270034.74	0.1768	0.0262	
Mercury	111020-05-27 19:10	G	42270429.18	42270429.30	42270429.42	0.1780	0.1224	
Venus	111025-03-20 07:54	G	42272186.68	42272186.83	42272186.97	0.1631	0.0949	
Mercury	111028-09-18 12:56	G	42273464.93	42273465.04	42273465.15	0.1776	0.0539	
Mercury	111029-10-17 15:20	G	42273858.97	42273859.14	42273859.31	0.1770	0.0327	
Mercury	111038-02-08 22:46	G	42276895.38	42276895.45	42276895.53	0.1785	0.1364	
Mercury	111049-06-06 16:46	G	42281031.11	42281031.20	42281031.29	0.1760	0.1139	
Venus	111052-08-07 18:13	G	42282189.24	42282189.26	42282189.29	0.1922	0.1888	
Venus	111057-03-19 04:03	G	42283873.55	42283873.67	42283873.80	0.1622	0.1165	
Mercury	111058-10-28 02:51	G	42284461.51	42284461.62	42284461.74	0.1768	0.0371	
Mercury	111059-11-26 19:39	G	42284856.22	42284856.32	42284856.43	0.1780	0.1386	
Mercury	111068-03-19 12:56	G	42287891.93	42287892.04	42287892.15	0.1776	0.0446	
Mercury	111069-04-17 16:18	G	42288286.01	42288286.18	42288286.35	0.1770	0.0152	
Mercury	111077-08-09 22:46	G	42291322.37	42291322.45	42291322.53	0.1785	0.1263	
Mercury	111078-09-07 13:10	G	42291715.99	42291716.05	42291716.11	0.1761	0.1625	
Mercury	111088-12-05 16:46	G	42295458.12	42295458.20	42295458.28	0.1759	0.1237	
Venus	111091-01-15 18:56	G	42296229.17	42296229.29	42296229.40	0.1633	0.1207	
Mercury	111098-04-28 02:51	G	42298888.51	42298888.62	42298888.73	0.1768	0.0455	
Mercury	111099-05-27 20:37	G	42299283.29	42299283.36	42299283.44	0.1780	0.1576	
Mercury	111107-09-19 12:56	G	42302318.93	42302319.04	42302319.15	0.1776	0.0337	
Mercury	111108-10-17 17:01	G	42302713.04	42302713.21	42302713.38	0.1770	0.0037	
Mercury	111117-02-08 22:46	G	42305749.37	42305749.45	42305749.54	0.1785	0.1163	
Mercury	111118-03-09 13:39	G	42306142.98	42306143.07	42306143.17	0.1761	0.1470	
Venus	111118-06-05 21:49	G	42306231.28	42306231.41	42306231.55	0.1919	0.1144	
Venus	111123-01-15 15:34	G	42307916.01	42307916.15	42307916.30	0.1625	0.0931	
Mercury	111128-06-06 16:32	G	42309885.12	42309885.19	42309885.27	0.1759	0.1333	

Mercury	111137-10-28 02:51 G	42313315.51	42313315.62	42313315.73	0.1768	0.0557
Mercury	111138-11-26 21:34 G	42313710.38	42313710.40	42313710.42	0.1780	0.1766
Mercury	111147-03-20 12:56 G	42316745.92	42316746.04	42316746.15	0.1776	0.0254
Mercury	111148-04-17 17:58 G	42317140.08	42317140.25	42317140.42	0.1771	0.0211
Mercury	111156-08-09 22:46 G	42320176.36	42320176.45	42320176.54	0.1785	0.1068
Venus	111156-11-13 05:44 G	42320271.66	42320271.74	42320271.82	0.1636	0.1463
Mercury	111157-09-07 14:51 G	42320570.00	42320570.12	42320570.23	0.1761	0.1283
Mercury	111167-12-06 16:32 G	42324312.13	42324312.19	42324312.26	0.1759	0.1434
Mercury	111177-04-28 02:51 G	42327742.51	42327742.62	42327742.72	0.1767	0.0657
Moon	111179-10-31 01:39 G	42328658.38	42328658.57	42328658.75	0.1580	0.0440
Earth	111179-10-31 07:54 G	42328658.64	42328658.83	42328659.02	0.1581	0.0208 *
Venus	111184-04-02 02:22 G	42330273.43	42330273.60	42330273.76	0.1915	0.0443
Mercury	111186-09-18 12:56 G	42331172.92	42331173.04	42331173.15	0.1776	0.0160
Mercury	111187-10-17 18:42 G	42331567.11	42331567.28	42331567.44	0.1771	0.0382
Venus	111188-11-12 02:51 G	42331958.46	42331958.62	42331958.78	0.1627	0.0690
Mercury	111196-02-08 22:46 G	42334603.35	42334603.45	42334603.54	0.1784	0.0966
Mercury	111197-03-08 15:34 G	42334997.02	42334997.15	42334997.28	0.1762	0.1105
Mercury	111207-06-06 16:32 G	42338739.14	42338739.19	42338739.25	0.1759	0.1528
Mercury	111216-10-27 02:37 G	42342169.51	42342169.61	42342169.72	0.1767	0.0752
Mercury	111226-03-19 12:56 G	42345599.92	42345600.04	42345600.15	0.1776	0.0079
Mercury	111227-04-17 19:39 G	42345994.16	42345994.32	42345994.48	0.1771	0.0569
Mercury	111235-08-09 22:46 G	42349030.35	42349030.45	42349030.55	0.1784	0.0866
Mercury	111236-09-06 16:18 G	42349424.04	42349424.18	42349424.32	0.1762	0.0951
Mercury	111244-12-30 08:22 G	42352460.82	42352460.85	42352460.88	0.1793	0.1710
Mercury	111246-12-05 16:32 G	42353166.15	42353166.19	42353166.23	0.1759	0.1626
Venus	111250-01-28 06:13 G	42354315.59	42354315.76	42354315.93	0.1911	0.0278
Venus	111254-09-09 13:54 G	42356000.91	42356001.08	42356001.25	0.1630	0.0443
Mercury	111256-04-27 02:37 G	42356596.51	42356596.61	42356596.71	0.1767	0.0849
Moon	111258-11-02 02:08 G	42357515.45	42357515.59	42357515.73	0.1582	0.1023
Earth	111258-11-02 07:39 G	42357515.71	42357515.82	42357515.93	0.1582	0.1291 *

Mercury	111265-09-17 12:42 G	42360026.92	42360027.03	42360027.15	0.1775	0.0076
Mercury	111266-10-16 20:22 G	42360421.20	42360421.35	42360421.50	0.1771	0.0740
Mercury	111275-02-07 22:46 G	42363457.34	42363457.45	42363457.55	0.1784	0.0772
Mercury	111276-03-07 17:15 G	42363851.07	42363851.22	42363851.38	0.1762	0.0754
Mercury	111284-06-30 08:37 G	42366887.81	42366887.86	42366887.90	0.1792	0.1606
Mercury	111286-06-05 16:32 G	42367593.17	42367593.19	42367593.21	0.1759	0.1725
Mercury	111295-10-27 02:37 G	42371023.52	42371023.61	42371023.71	0.1767	0.0956
Mercury	111305-03-19 12:42 G	42374453.92	42374454.03	42374454.15	0.1775	0.0149
Mercury	111306-04-17 21:20 G	42374848.24	42374848.39	42374848.53	0.1772	0.0927
Mercury	111314-08-09 22:46 G	42377884.34	42377884.45	42377884.55	0.1784	0.0669
Mercury	111315-09-07 18:13 G	42378278.10	42378278.26	42378278.42	0.1762	0.0582
Venus	111315-11-26 11:01 G	42378357.81	42378357.96	42378358.11	0.1906	0.0944
Venus	111320-07-08 01:25 G	42380043.38	42380043.56	42380043.74	0.1632	0.0205
Mercury	111323-12-31 08:22 G	42381314.79	42381314.85	42381314.91	0.1792	0.1513
Mercury	111335-04-28 02:37 G	42385450.52	42385450.61	42385450.70	0.1767	0.1044
Mercury	111344-09-17 12:42 G	42388880.92	42388881.03	42388881.15	0.1775	0.0266
Mercury	111345-10-16 22:03 G	42389275.29	42389275.42	42389275.55	0.1772	0.1106
Mercury	111354-02-07 22:46 G	42392311.34	42392311.45	42392311.55	0.1783	0.0570
Mercury	111355-03-08 18:42 G	42392705.12	42392705.28	42392705.45	0.1763	0.0420
Mercury	111363-07-01 08:22 G	42395741.78	42395741.85	42395741.92	0.1792	0.1411
Mercury	111374-10-27 02:37 G	42399877.52	42399877.61	42399877.70	0.1766	0.1149
Venus	111381-09-22 15:34 G	42402400.06	42402400.15	42402400.23	0.1902	0.1622
Mercury	111384-03-18 12:42 G	42403307.92	42403308.03	42403308.14	0.1775	0.0348
Earth	111384-10-30 15:06 G	42403533.98	42403534.13	42403534.28	0.1578	0.0958
Moon	111384-10-30 16:03 G	42403534.01	42403534.17	42403534.32	0.1578	0.0783 *
Mercury	111385-04-16 23:01 G	42403702.34	42403702.46	42403702.57	0.1772	0.1287
Venus	111386-05-05 12:13 G	42404085.83	42404086.01	42404086.19	0.1635	0.0051
Mercury	111393-08-08 22:32 G	42406738.33	42406738.44	42406738.55	0.1784	0.0469
Mercury	111394-09-06 19:39 G	42407132.16	42407132.32	42407132.49	0.1763	0.0232
Mercury	111402-12-31 08:22 G	42410168.78	42410168.85	42410168.93	0.1792	0.1303

Mercury	111404-01-28 16:46 G	42410562.16	42410562.20	42410562.24	0.1754	0.1702
Mercury	111414-04-28 02:37 G	42414304.53	42414304.61	42414304.69	0.1766	0.1249
Mercury	111423-09-18 12:42 G	42417734.92	42417735.03	42417735.14	0.1775	0.0451
Mercury	111424-10-16 23:44 G	42418129.40	42418129.49	42418129.58	0.1773	0.1467
Mercury	111433-02-07 22:32 G	42421165.33	42421165.44	42421165.56	0.1783	0.0368
Mercury	111434-03-08 20:37 G	42421559.19	42421559.36	42421559.53	0.1763	0.0050
Mercury	111442-07-01 08:22 G	42424595.76	42424595.85	42424595.93	0.1792	0.1211
Mercury	111443-07-29 17:44 G	42424989.16	42424989.24	42424989.32	0.1754	0.1526
Venus	111452-03-02 23:30 G	42428128.30	42428128.48	42428128.65	0.1638	0.0297
Mercury	111453-10-27 02:37 G	42428731.53	42428731.61	42428731.68	0.1766	0.1346
Mercury	111463-03-19 12:42 G	42432161.92	42432162.03	42432162.14	0.1775	0.0556
Earth	111463-11-03 15:34 G	42432390.98	42432391.15	42432391.33	0.1579	0.0546
Moon	111463-11-03 20:37 G	42432391.19	42432391.36	42432391.52	0.1579	0.0659 *
Mercury	111464-04-17 00:42 G	42432556.47	42432556.53	42432556.59	0.1773	0.1656
Mercury	111472-08-08 22:32 G	42435592.33	42435592.44	42435592.56	0.1783	0.0266
Mercury	111473-09-06 21:20 G	42435986.22	42435986.39	42435986.56	0.1763	0.0120
Venus	111479-07-21 14:37 G	42438130.03	42438130.11	42438130.20	0.1912	0.1625
Mercury	111481-12-30 08:22 G	42439022.76	42439022.85	42439022.94	0.1792	0.1105
Mercury	111483-01-27 18:42 G	42439416.17	42439416.28	42439416.38	0.1754	0.1342
Mercury	111493-04-27 02:22 G	42443158.54	42443158.60	42443158.67	0.1766	0.1447
Mercury	111502-09-18 12:42 G	42446588.92	42446589.03	42446589.13	0.1774	0.0653
Mercury	111512-02-08 22:32 G	42450019.33	42450019.44	42450019.55	0.1783	0.0164
Mercury	111513-03-08 22:18 G	42450413.27	42450413.43	42450413.60	0.1764	0.0315
Venus	111517-12-30 10:18 G	42452170.76	42452170.93	42452171.10	0.1640	0.0558
Mercury	111521-07-01 08:22 G	42453449.76	42453449.85	42453449.95	0.1791	0.0999
Mercury	111522-07-29 19:10 G	42453843.18	42453843.30	42453843.42	0.1754	0.1183
Mercury	111532-10-27 02:37 G	42457585.56	42457585.61	42457585.66	0.1765	0.1551
Mercury	111542-03-19 12:27 G	42461015.92	42461016.02	42461016.13	0.1774	0.0754
Venus	111545-05-18 18:42 G	42462172.14	42462172.28	42462172.43	0.1908	0.0916
Venus	111549-12-29 07:54 G	42463857.81	42463857.83	42463857.84	0.1631	0.1620

Mercury	111551-08-09 22:32 G	42464446.33	42464446.44	42464446.55	0.1783	0.0062
Mercury	111552-09-06 23:15 G	42464840.30	42464840.47	42464840.63	0.1764	0.0492
Mercury	111560-12-30 08:22 G	42467876.75	42467876.85	42467876.95	0.1791	0.0905
Mercury	111562-01-27 20:08 G	42468270.20	42468270.34	42468270.48	0.1755	0.0997
Mercury	111570-05-22 18:13 G	42471307.23	42471307.26	42471307.28	0.1800	0.1757
Mercury	111572-04-27 02:22 G	42472012.56	42472012.60	42472012.64	0.1766	0.1644
Mercury	111581-09-17 12:42 G	42475442.93	42475443.03	42475443.13	0.1774	0.0861
Venus	111583-10-27 21:06 G	42476213.23	42476213.38	42476213.53	0.1643	0.0822
Moon	111589-11-01 06:13 G	42478409.69	42478409.76	42478409.82	0.1577	0.1476
Mercury	111591-02-07 22:32 G	42478873.32	42478873.44	42478873.55	0.1782	0.0043
Mercury	111592-03-07 23:44 G	42479267.34	42479267.49	42479267.65	0.1764	0.0660
Mercury	111600-06-30 08:22 G	42482303.75	42482303.85	42482303.95	0.1791	0.0800
Mercury	111601-07-28 21:06 G	42482697.23	42482697.38	42482697.53	0.1755	0.0814
Mercury	111609-11-20 17:58 G	42485734.21	42485734.25	42485734.30	0.1799	0.1657
Venus	111611-03-15 23:44 G	42486214.32	42486214.49	42486214.66	0.1904	0.0242
Mercury	111611-10-27 02:22 G	42486439.59	42486439.60	42486439.62	0.1765	0.1751
Moon	111613-05-02 10:03 G	42486992.72	42486992.92	42486993.13	0.1965	0.0036
Earth	111613-05-02 20:08 G	42486993.15	42486993.34	42486993.53	0.1965	0.0610
Venus	111615-10-26 18:42 G	42487900.19	42487900.28	42487900.38	0.1634	0.1372
Mercury	111621-03-18 12:27 G	42489869.93	42489870.02	42489870.12	0.1774	0.0952
Mercury	111630-08-08 22:32 G	42493300.32	42493300.44	42493300.55	0.1782	0.0145
Mercury	111631-09-07 00:56 G	42493694.39	42493694.54	42493694.68	0.1765	0.0856
Mercury	111639-12-30 08:22 G	42496730.75	42496730.85	42496730.96	0.1791	0.0689
Mercury	111641-01-26 21:49 G	42497124.25	42497124.41	42497124.56	0.1755	0.0649
Mercury	111649-05-21 17:58 G	42500161.20	42500161.25	42500161.31	0.1799	0.1556
Venus	111649-08-24 07:39 G	42500255.69	42500255.82	42500255.95	0.1646	0.1098
Mercury	111660-09-16 12:27 G	42504296.93	42504297.02	42504297.11	0.1774	0.1058
Earth	111668-11-02 23:58 G	42507266.31	42507266.50	42507266.68	0.1577	0.0182
Moon	111668-11-03 04:03 G	42507266.47	42507266.67	42507266.87	0.1577	0.0085 *
Mercury	111670-02-06 22:32 G	42507727.32	42507727.44	42507727.55	0.1782	0.0248

Mercury	111671-03-08 01:39 G	42508121.44	42508121.57	42508121.71	0.1765	0.1040
Venus	111677-01-10 04:03 G	42510256.51	42510256.67	42510256.84	0.1900	0.0449
Mercury	111679-06-30 08:22 G	42511157.74	42511157.85	42511157.95	0.1791	0.0601
Mercury	111680-07-27 22:46 G	42511551.28	42511551.45	42511551.61	0.1756	0.0469
Venus	111681-08-23 05:44 G	42511942.62	42511942.74	42511942.87	0.1637	0.1122
Mercury	111688-11-19 17:58 G	42514588.19	42514588.25	42514588.32	0.1799	0.1446
Mercury	111700-03-18 12:27 G	42518723.94	42518724.02	42518724.11	0.1773	0.1165
Mercury	111709-08-08 22:32 G	42522154.32	42522154.44	42522154.55	0.1782	0.0350
Mercury	111710-09-07 02:22 G	42522548.48	42522548.60	42522548.72	0.1765	0.1205
Venus	111715-06-22 18:27 G	42524298.18	42524298.27	42524298.37	0.1649	0.1368
Mercury	111718-12-30 08:22 G	42525584.74	42525584.85	42525584.96	0.1790	0.0492
Mercury	111720-01-27 23:44 G	42525978.32	42525978.49	42525978.65	0.1756	0.0281
Mercury	111728-05-21 17:58 G	42529015.18	42529015.25	42529015.33	0.1799	0.1349
Mercury	111729-06-18 20:51 G	42529408.36	42529408.37	42529408.39	0.1747	0.1738
Mercury	111739-09-17 12:27 G	42533150.94	42533151.02	42533151.10	0.1773	0.1259
Venus	111742-11-08 09:34 G	42534298.76	42534298.90	42534299.03	0.1895	0.1080
Venus	111747-06-21 17:15 G	42535985.07	42535985.22	42535985.37	0.1639	0.0877
Earth	111747-11-07 00:13 G	42536123.40	42536123.51	42536123.61	0.1578	0.1315
Moon	111747-11-06 23:44 G	42536123.42	42536123.49	42536123.57	0.1578	0.1456 *
Mercury	111749-02-06 22:32 G	42536581.32	42536581.44	42536581.55	0.1782	0.0454
Mercury	111750-03-08 03:20 G	42536975.54	42536975.64	42536975.75	0.1765	0.1407
Mercury	111758-06-30 08:22 G	42540011.74	42540011.85	42540011.96	0.1790	0.0383
Mercury	111759-07-29 00:13 G	42540405.34	42540405.51	42540405.68	0.1756	0.0117
Mercury	111767-11-20 17:58 G	42543442.17	42543442.25	42543442.33	0.1799	0.1243
Mercury	111768-12-17 21:49 G	42543835.34	42543835.41	42543835.48	0.1747	0.1562
Mercury	111779-03-18 12:27 G	42547577.95	42547578.02	42547578.09	0.1773	0.1360
Venus	111781-04-19 05:01 G	42548340.70	42548340.71	42548340.72	0.1652	0.1647
Mercury	111788-08-07 22:18 G	42551008.33	42551008.43	42551008.54	0.1781	0.0555
Mercury	111789-09-06 04:18 G	42551402.61	42551402.68	42551402.75	0.1765	0.1585
Mercury	111797-12-29 08:08 G	42554438.73	42554438.84	42554438.96	0.1790	0.0295

Mercury	111799-01-27 01:10 G	42554832.39	42554832.55	42554832.72	0.1756	0.0088
Mercury	111807-05-22 17:58 G	42557869.17	42557869.25	42557869.34	0.1798	0.1136
Mercury	111808-06-18 22:32 G	42558262.34	42558262.44	42558262.55	0.1747	0.1385
Venus	111808-09-05 14:22 G	42558341.04	42558341.10	42558341.17	0.1891	0.1728
Venus	111813-04-19 03:49 G	42560027.50	42560027.66	42560027.82	0.1642	0.0614
Mercury	111818-09-17 12:27 G	42562004.96	42562005.02	42562005.08	0.1773	0.1471
Mercury	111828-02-07 22:18 G	42565435.33	42565435.43	42565435.54	0.1781	0.0657
Mercury	111829-03-08 05:01 G	42565829.70	42565829.71	42565829.72	0.1766	0.1761
Mercury	111837-06-30 08:22 G	42568865.73	42568865.85	42568865.96	0.1790	0.0192
Mercury	111838-07-29 02:08 G	42569259.42	42569259.59	42569259.76	0.1757	0.0261
Mercury	111846-11-20 17:58 G	42572296.16	42572296.25	42572296.35	0.1798	0.1035
Mercury	111847-12-18 23:30 G	42572689.36	42572689.48	42572689.60	0.1747	0.1211
Mercury	111858-03-18 12:27 G	42576431.97	42576432.02	42576432.07	0.1772	0.1563
Mercury	111867-08-08 22:18 G	42579862.33	42579862.43	42579862.54	0.1781	0.0761
Moon	111873-11-04 02:37 G	42582141.47	42582141.61	42582141.76	0.1576	0.1057
Earth	111873-11-04 08:37 G	42582141.70	42582141.86	42582142.01	0.1576	0.0900 *
Mercury	111876-12-29 08:22 G	42583292.73	42583292.85	42583292.96	0.1789	0.0074
Mercury	111878-01-27 02:51 G	42583686.45	42583686.62	42583686.78	0.1757	0.0427
Venus	111879-02-14 15:06 G	42584069.96	42584070.13	42584070.30	0.1645	0.0364
Mercury	111886-05-21 17:58 G	42586723.15	42586723.25	42586723.35	0.1798	0.0933
Mercury	111887-06-19 00:13 G	42587116.38	42587116.51	42587116.65	0.1748	0.1036
Mercury	111895-10-12 03:34 G	42590153.65	42590153.65	42590153.65	0.1806	0.1803
Earth	111897-05-03 15:49 G	42590723.00	42590723.16	42590723.31	0.1967	0.1286
Moon	111897-05-04 00:13 G	42590723.38	42590723.51	42590723.65	0.1967	0.1379
Mercury	111897-09-16 12:27 G	42590858.98	42590859.02	42590859.05	0.1772	0.1670
Venus	111906-07-04 12:42 G	42594070.92	42594071.03	42594071.14	0.1901	0.1447
Mercury	111907-02-07 22:18 G	42594289.33	42594289.43	42594289.53	0.1781	0.0862
Mercury	111916-06-30 08:08 G	42597719.73	42597719.84	42597719.96	0.1789	0.0043
Mercury	111917-07-29 03:49 G	42598113.50	42598113.66	42598113.82	0.1757	0.0617
Mercury	111925-11-20 17:58 G	42601150.15	42601150.25	42601150.36	0.1798	0.0821

Mercury	111926-12-19 01:10 G	42601543.40	42601543.55	42601543.70	0.1748	0.0853
Mercury	111935-04-13 03:34 G	42604580.62	42604580.65	42604580.69	0.1806	0.1702
Venus	111944-12-13 01:25 G	42608112.39	42608112.56	42608112.74	0.1648	0.0102
Mercury	111946-08-08 22:18 G	42608716.33	42608716.43	42608716.53	0.1780	0.0961
Moon	111952-11-07 03:06 G	42610998.46	42610998.63	42610998.80	0.1576	0.0628
Earth	111952-11-07 08:51 G	42610998.70	42610998.87	42610999.05	0.1576	0.0603 *
Mercury	111955-12-30 08:08 G	42612146.73	42612146.84	42612146.96	0.1789	0.0153
Mercury	111957-01-27 04:46 G	42612540.55	42612540.70	42612540.85	0.1758	0.0809
Mercury	111965-05-21 17:58 G	42615577.14	42615577.25	42615577.35	0.1798	0.0725
Mercury	111966-06-19 01:54 G	42615970.43	42615970.58	42615970.74	0.1748	0.0680
Venus	111972-04-30 17:30 G	42618113.07	42618113.23	42618113.38	0.1897	0.0768
Mercury	111974-10-12 03:34 G	42619007.60	42619007.65	42619007.70	0.1806	0.1596
Mercury	111986-02-06 22:18 G	42623143.34	42623143.43	42623143.52	0.1780	0.1070
Mercury	111995-06-30 08:22 G	42626573.73	42626573.85	42626573.96	0.1789	0.0248
Mercury	111996-07-28 05:15 G	42626967.58	42626967.72	42626967.86	0.1758	0.0971

113TH MILLENNIUM CE

This is a list of transits visible from Mars in the 113th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	112004-11-19 17:58 G	42630004.14	42630004.25	42630004.36	0.1797	0.0617		
Mercury	112005-12-18 02:51 G	42630397.46	42630397.62	42630397.78	0.1749	0.0500		
Venus	112010-10-10 12:13 G	42632154.83	42632155.01	42632155.18	0.1651	0.0182		
Mercury	112014-04-12 03:34 G	42633434.59	42633434.65	42633434.71	0.1806	0.1492		

Mercury	112025-08-07 22:18 G	42637570.34	42637570.43	42637570.52	0.1780	0.1169
Mercury	112034-12-29 08:08 G	42641000.73	42641000.84	42641000.95	0.1789	0.0340
Mercury	112036-01-27 06:27 G	42641394.64	42641394.77	42641394.89	0.1758	0.1170
Venus	112038-02-25 22:32 G	42642155.27	42642155.44	42642155.61	0.1893	0.0115
Mercury	112044-05-20 17:58 G	42644431.14	42644431.25	42644431.36	0.1797	0.0508
Mercury	112045-06-18 03:34 G	42644824.48	42644824.65	42644824.82	0.1749	0.0324
Mercury	112053-10-11 03:34 G	42647861.58	42647861.65	42647861.72	0.1806	0.1385
Mercury	112065-02-05 22:18 G	42651997.35	42651997.43	42651997.51	0.1780	0.1272
Mercury	112074-06-29 08:08 G	42655427.73	42655427.84	42655427.95	0.1788	0.0446
Mercury	112075-07-28 07:10 G	42655821.70	42655821.80	42655821.91	0.1758	0.1353
Venus	112076-08-06 22:32 G	42656197.27	42656197.44	42656197.61	0.1654	0.0463
Mercury	112083-11-19 17:58 G	42658858.14	42658858.25	42658858.36	0.1797	0.0412
Mercury	112084-12-17 04:32 G	42659251.52	42659251.69	42659251.85	0.1749	0.0152
Mercury	112093-04-11 03:34 G	42662288.57	42662288.65	42662288.73	0.1806	0.1283
Mercury	112094-05-09 02:08 G	42662681.52	42662681.59	42662681.66	0.1740	0.1575
Venus	112103-12-25 03:20 G	42666197.48	42666197.64	42666197.80	0.1888	0.0551
Mercury	112104-08-07 22:18 G	42666424.36	42666424.43	42666424.50	0.1780	0.1379
Mercury	112113-12-29 08:08 G	42669854.73	42669854.84	42669854.95	0.1788	0.0554
Mercury	112115-01-27 07:54 G	42670248.75	42670248.83	42670248.91	0.1758	0.1521
Mercury	112123-05-21 17:58 G	42673285.13	42673285.25	42673285.36	0.1797	0.0311
Mercury	112124-06-18 05:15 G	42673678.55	42673678.72	42673678.89	0.1749	0.0038
Mercury	112132-10-11 03:34 G	42676715.56	42676715.65	42676715.74	0.1805	0.1173
Mercury	112133-11-08 02:51 G	42677108.53	42677108.62	42677108.72	0.1740	0.1405
Venus	112142-06-05 09:06 G	42680239.72	42680239.88	42680240.04	0.1657	0.0744
Mercury	112144-02-06 22:18 G	42680851.37	42680851.43	42680851.49	0.1779	0.1479
Mercury	112153-06-29 08:08 G	42684281.73	42684281.84	42684281.95	0.1788	0.0650
Mercury	112154-07-28 08:51 G	42684675.84	42684675.87	42684675.90	0.1759	0.1717
Earth	112157-11-07 17:15 G	42685874.03	42685874.22	42685874.41	0.1575	0.0124
Moon	112157-11-07 19:10 G	42685874.12	42685874.30	42685874.48	0.1575	0.0268 *
Mercury	112162-11-19 17:58 G	42687712.14	42687712.25	42687712.36	0.1796	0.0190

Mercury	112163-12-18 05:58 G	42688105.59	42688105.75	42688105.92	0.1749	0.0220
Venus	112169-10-21 09:06 G	42690239.74	42690239.88	42690240.01	0.1884	0.1161
Mercury	112172-04-11 03:34 G	42691142.56	42691142.65	42691142.74	0.1805	0.1073
Mercury	112173-05-09 03:34 G	42691535.53	42691535.65	42691535.77	0.1741	0.1241
Venus	112174-06-04 08:22 G	42691926.79	42691926.85	42691926.91	0.1647	0.1543
Mercury	112183-08-07 22:03 G	42695278.38	42695278.42	42695278.48	0.1779	0.1582
Mercury	112192-12-28 08:08 G	42698708.74	42698708.84	42698708.94	0.1788	0.0759
Mercury	112202-05-21 17:44 G	42702139.13	42702139.24	42702139.36	0.1796	0.0113
Mercury	112203-06-19 06:56 G	42702532.62	42702532.79	42702532.95	0.1750	0.0394
Venus	112208-04-02 19:25 G	42704282.17	42704282.31	42704282.44	0.1660	0.1038
Mercury	112211-10-12 03:34 G	42705569.55	42705569.65	42705569.75	0.1805	0.0963
Mercury	112212-11-08 04:32 G	42705962.56	42705962.69	42705962.82	0.1741	0.1054
Mercury	112223-02-06 22:18 G	42709705.40	42709705.43	42709705.46	0.1779	0.1691
Mercury	112232-06-29 08:08 G	42713135.74	42713135.84	42713135.94	0.1787	0.0863
Venus	112235-08-19 14:22 G	42714282.05	42714282.10	42714282.15	0.1879	0.1783
Earth	112236-11-10 17:15 G	42714731.13	42714731.22	42714731.31	0.1576	0.1372
Moon	112236-11-10 22:32 G	42714731.37	42714731.44	42714731.51	0.1576	0.1444
Venus	112240-04-01 18:42 G	42715969.17	42715969.28	42715969.40	0.1650	0.1271
Mercury	112241-11-19 17:44 G	42716566.13	42716566.24	42716566.36	0.1796	0.0061
Mercury	112242-12-18 07:39 G	42716959.66	42716959.82	42716959.98	0.1750	0.0579
Mercury	112251-04-12 03:34 G	42719996.55	42719996.65	42719996.75	0.1805	0.0861
Mercury	112252-05-09 05:15 G	42720389.58	42720389.72	42720389.87	0.1741	0.0878
Moon	112260-05-08 22:32 G	42723311.30	42723311.44	42723311.59	0.1967	0.1378
Mercury	112260-09-01 12:56 G	42723427.02	42723427.04	42723427.07	0.1814	0.1761
Mercury	112271-12-29 08:08 G	42727562.74	42727562.84	42727562.93	0.1788	0.0966
Venus	112274-01-29 05:44 G	42728324.64	42728324.74	42728324.85	0.1664	0.1332
Mercury	112281-05-20 17:58 G	42730993.13	42730993.25	42730993.36	0.1796	0.0136
Mercury	112282-06-18 08:22 G	42731386.70	42731386.85	42731387.01	0.1750	0.0754
Mercury	112290-10-11 03:34 G	42734423.54	42734423.65	42734423.75	0.1804	0.0753
Mercury	112291-11-08 05:58 G	42734816.60	42734816.75	42734816.90	0.1741	0.0716

Mercury	112300-03-03 12:56 G	42737854.00	42737854.04	42737854.09	0.1813	0.1652
Venus	112306-01-29 05:44 G	42740011.60	42740011.74	42740011.88	0.1653	0.1009
Mercury	112311-06-30 08:08 G	42741989.74	42741989.84	42741989.93	0.1787	0.1071
Mercury	112320-11-19 17:44 G	42745420.13	42745420.24	42745420.36	0.1796	0.0222
Mercury	112321-12-18 09:20 G	42745813.75	42745813.89	42745814.03	0.1751	0.0937
Mercury	112330-04-12 03:34 G	42748850.54	42748850.65	42748850.75	0.1805	0.0651
Mercury	112331-05-10 06:56 G	42749243.63	42749243.79	42749243.95	0.1742	0.0522
Venus	112333-06-16 11:30 G	42750011.86	42750011.98	42750012.10	0.1890	0.1306
Mercury	112339-09-02 12:56 G	42752280.99	42752281.04	42752281.10	0.1813	0.1542
Venus	112339-11-27 15:49 G	42752367.13	42752367.16	42752367.20	0.1667	0.1630
Mercury	112350-12-29 08:08 G	42756416.75	42756416.84	42756416.92	0.1787	0.1177
Mercury	112360-05-20 17:44 G	42759847.13	42759847.24	42759847.35	0.1796	0.0324
Mercury	112361-06-18 10:18 G	42760240.80	42760240.93	42760241.05	0.1751	0.1123
Earth	112362-11-09 01:25 G	42760749.40	42760749.56	42760749.72	0.1574	0.0848
Moon	112362-11-09 07:25 G	42760749.65	42760749.81	42760749.97	0.1574	0.0915 *
Mercury	112369-10-11 03:34 G	42763277.54	42763277.65	42763277.76	0.1804	0.0542
Mercury	112370-11-08 07:39 G	42763670.66	42763670.82	42763670.99	0.1742	0.0353
Venus	112371-11-26 15:49 G	42764054.00	42764054.16	42764054.32	0.1656	0.0720
Mercury	112379-03-03 12:56 G	42766707.97	42766708.04	42766708.11	0.1813	0.1445
Mercury	112390-06-29 07:54 G	42770843.75	42770843.83	42770843.91	0.1787	0.1276
Venus	112399-04-13 16:32 G	42774054.04	42774054.19	42774054.35	0.1886	0.0653
Mercury	112399-11-19 17:44 G	42774274.13	42774274.24	42774274.36	0.1795	0.0445
Mercury	112400-12-17 10:46 G	42774667.84	42774667.95	42774668.07	0.1751	0.1297
Mercury	112409-04-11 03:20 G	42777704.53	42777704.64	42777704.75	0.1804	0.0443
Mercury	112410-05-09 08:22 G	42778097.68	42778097.85	42778098.02	0.1742	0.0183
Mercury	112418-09-01 12:56 G	42781134.96	42781135.04	42781135.12	0.1813	0.1332
Mercury	112419-09-29 06:27 G	42781527.71	42781527.77	42781527.84	0.1733	0.1588
Mercury	112429-12-28 07:54 G	42785270.76	42785270.83	42785270.90	0.1787	0.1385
Venus	112437-09-23 02:08 G	42788096.42	42788096.59	42788096.76	0.1659	0.0438
Mercury	112439-05-20 17:44 G	42788701.13	42788701.24	42788701.35	0.1795	0.0533

Mercury	112440-06-17 11:44 G	42789094.90	42789094.99	42789095.08	0.1751	0.1478
Earth	112441-11-11 01:25 G	42789606.39	42789606.56	42789606.74	0.1575	0.0640
Moon	112441-11-11 05:01 G	42789606.52	42789606.71	42789606.90	0.1575	0.0492 *
Mercury	112448-10-10 03:34 G	42792131.53	42792131.65	42792131.76	0.1804	0.0334
Mercury	112449-11-07 09:20 G	42792524.72	42792524.89	42792525.06	0.1742	0.0011
Mercury	112458-03-02 12:56 G	42795561.96	42795562.04	42795562.13	0.1812	0.1223
Mercury	112459-03-30 07:10 G	42795954.71	42795954.80	42795954.89	0.1733	0.1428
Venus	112465-02-07 21:49 G	42798096.24	42798096.41	42798096.58	0.1881	0.0044
Mercury	112469-06-28 07:54 G	42799697.77	42799697.83	42799697.89	0.1786	0.1487
Mercury	112478-11-18 17:44 G	42803128.13	42803128.24	42803128.34	0.1795	0.0643
Mercury	112479-12-17 12:42 G	42803521.98	42803522.03	42803522.07	0.1752	0.1670
Mercury	112488-04-10 03:20 G	42806558.53	42806558.64	42806558.76	0.1803	0.0231
Mercury	112489-05-08 10:03 G	42806951.75	42806951.92	42806952.09	0.1742	0.0186
Mercury	112497-08-31 12:56 G	42809988.95	42809989.04	42809989.13	0.1812	0.1126
Mercury	112498-09-28 07:54 G	42810381.72	42810381.83	42810381.95	0.1734	0.1248
Venus	112503-07-22 12:13 G	42812138.84	42812139.01	42812139.19	0.1662	0.0143
Mercury	112508-12-28 07:54 G	42814124.78	42814124.83	42814124.88	0.1786	0.1591
Mercury	112518-05-20 17:44 G	42817555.14	42817555.24	42817555.34	0.1795	0.0752
Mercury	112527-10-11 03:20 G	42820985.53	42820985.64	42820985.76	0.1803	0.0124
Mercury	112528-11-07 10:46 G	42821378.78	42821378.95	42821379.11	0.1743	0.0351
Venus	112530-12-07 03:06 G	42822138.47	42822138.63	42822138.79	0.1876	0.0625
Mercury	112537-03-02 12:56 G	42824415.94	42824416.04	42824416.13	0.1812	0.1016
Mercury	112538-03-30 08:51 G	42824808.74	42824808.87	42824809.00	0.1734	0.1065
Earth	112544-05-10 01:39 G	42827041.37	42827041.57	42827041.77	0.1968	0.0046
Moon	112544-05-10 08:51 G	42827041.68	42827041.87	42827042.05	0.1968	0.0203 *
Mercury	112548-06-28 07:54 G	42828551.80	42828551.83	42828551.86	0.1786	0.1696
Mercury	112557-11-18 17:30 G	42831982.13	42831982.23	42831982.34	0.1795	0.0853
Mercury	112567-04-11 03:20 G	42835412.53	42835412.64	42835412.76	0.1803	0.0022
Moon	112567-11-09 05:58 G	42835624.67	42835624.75	42835624.83	0.1574	0.1434
Mercury	112568-05-08 11:44 G	42835805.83	42835805.99	42835806.15	0.1743	0.0545

Venus	112569-05-18 22:18 G	42836181.25	42836181.43	42836181.61	0.1666	0.0158
Mercury	112576-08-31 12:56 G	42838842.94	42838843.04	42838843.14	0.1812	0.0904
Mercury	112577-09-28 09:20 G	42839235.75	42839235.89	42839236.03	0.1734	0.0911
Venus	112596-10-03 09:06 G	42846180.75	42846180.88	42846181.01	0.1872	0.1214
Mercury	112597-05-19 17:30 G	42846409.14	42846409.23	42846409.33	0.1794	0.0957
Mercury	112606-10-11 03:20 G	42849839.53	42849839.64	42849839.76	0.1803	0.0093
Mercury	112607-11-08 12:27 G	42850232.86	42850233.02	42850233.17	0.1743	0.0715
Mercury	112616-03-02 12:42 G	42853269.93	42853270.03	42853270.14	0.1812	0.0807
Mercury	112617-03-30 10:18 G	42853662.78	42853662.93	42853663.09	0.1734	0.0720
Mercury	112625-07-23 22:18 G	42856700.39	42856700.43	42856700.46	0.1820	0.1714
Venus	112635-03-17 08:22 G	42860223.68	42860223.85	42860224.02	0.1669	0.0462
Mercury	112636-11-18 17:44 G	42860836.15	42860836.24	42860836.33	0.1794	0.1071
Mercury	112646-04-11 03:20 G	42864266.52	42864266.64	42864266.75	0.1803	0.0199
Moon	112646-11-12 02:37 G	42864481.42	42864481.61	42864481.81	0.1574	0.0128
Earth	112646-11-12 09:20 G	42864481.70	42864481.89	42864482.08	0.1574	0.0101 *
Mercury	112647-05-09 13:10 G	42864659.90	42864660.05	42864660.19	0.1744	0.0893
Mercury	112655-09-01 12:41 G	42867696.93	42867697.03	42867697.14	0.1811	0.0696
Mercury	112656-09-28 11:15 G	42868089.81	42868089.97	42868090.13	0.1735	0.0542
Venus	112662-08-01 14:51 G	42870223.08	42870223.12	42870223.15	0.1867	0.1818
Mercury	112665-01-21 22:03 G	42871127.37	42871127.42	42871127.48	0.1820	0.1616
Mercury	112676-05-19 17:29 G	42875263.14	42875263.23	42875263.32	0.1794	0.1162
Mercury	112685-10-10 03:20 G	42878693.53	42878693.64	42878693.75	0.1803	0.0310
Mercury	112686-11-07 14:08 G	42879086.95	42879087.09	42879087.22	0.1744	0.1082
Venus	112694-08-01 05:29 G	42881910.70	42881910.73	42881910.77	0.1883	0.1831
Mercury	112695-03-02 12:56 G	42882123.93	42882124.04	42882124.14	0.1811	0.0589
Mercury	112696-03-29 11:44 G	42882516.83	42882516.99	42882517.15	0.1735	0.0383
Venus	112701-01-12 18:27 G	42884266.11	42884266.27	42884266.42	0.1672	0.0772
Mercury	112704-07-23 22:03 G	42885554.36	42885554.42	42885554.49	0.1820	0.1508
Mercury	112715-11-19 17:29 G	42889690.15	42889690.23	42889690.31	0.1794	0.1275
Mercury	112725-04-11 03:20 G	42893120.52	42893120.64	42893120.75	0.1802	0.0414

Moon	112725-11-15 03:20 G	42893338.52	42893338.64	42893338.76	0.1575	0.1200
Earth	112725-11-15 09:05 G	42893338.80	42893338.88	42893338.97	0.1575	0.1393
Mercury	112726-05-09 14:51 G	42893514.00	42893514.12	42893514.23	0.1744	0.1260
Venus	112733-01-11 19:10 G	42895953.27	42895953.30	42895953.34	0.1661	0.1621
Mercury	112734-09-01 12:41 G	42896550.92	42896551.03	42896551.14	0.1811	0.0484
Mercury	112735-09-29 12:41 G	42896943.86	42896944.03	42896944.19	0.1735	0.0197
Mercury	112744-01-22 22:17 G	42899981.35	42899981.43	42899981.50	0.1820	0.1390
Mercury	112745-02-18 10:46 G	42900373.89	42900373.95	42900374.02	0.1726	0.1597
Mercury	112755-05-20 17:29 G	42904117.16	42904117.23	42904117.30	0.1794	0.1385
Venus	112760-05-29 10:46 G	42905952.82	42905952.95	42905953.08	0.1878	0.1190
Mercury	112764-10-10 03:05 G	42907547.52	42907547.63	42907547.74	0.1802	0.0521
Mercury	112765-11-07 15:34 G	42907941.05	42907941.15	42907941.24	0.1744	0.1432
Venus	112766-11-10 04:03 G	42908308.54	42908308.67	42908308.81	0.1676	0.1087
Mercury	112774-03-02 12:41 G	42910977.92	42910978.03	42910978.14	0.1811	0.0373
Mercury	112775-03-30 13:25 G	42911370.90	42911371.06	42911371.23	0.1735	0.0043
Mercury	112783-07-23 22:03 G	42914408.34	42914408.42	42914408.50	0.1819	0.1293
Mercury	112784-08-19 11:29 G	42914800.89	42914800.98	42914801.08	0.1727	0.1429
Mercury	112794-11-18 17:29 G	42918544.16	42918544.23	42918544.29	0.1793	0.1483
Venus	112798-11-09 04:46 G	42919995.60	42919995.70	42919995.81	0.1665	0.1318
Mercury	112804-04-10 03:05 G	42921974.53	42921974.63	42921974.74	0.1802	0.0628
Mercury	112805-05-08 16:32 G	42922368.13	42922368.19	42922368.24	0.1744	0.1628
Mercury	112813-08-31 12:41 G	42925404.92	42925405.03	42925405.15	0.1810	0.0265
Mercury	112814-09-28 13:53 G	42925797.92	42925798.08	42925798.25	0.1735	0.0153
Mercury	112823-01-21 22:03 G	42928835.34	42928835.42	42928835.51	0.1819	0.1182
Mercury	112824-02-18 12:27 G	42929227.90	42929228.02	42929228.13	0.1727	0.1249
Venus	112826-03-26 16:17 G	42929995.02	42929995.18	42929995.34	0.1874	0.0558
Moon	112828-05-10 09:20 G	42930770.86	42930770.89	42930770.92	0.1968	0.1936
Venus	112832-09-06 13:53 G	42932350.98	42932351.08	42932351.17	0.1679	0.1415
Mercury	112834-05-19 17:29 G	42932971.17	42932971.23	42932971.28	0.1793	0.1591
Mercury	112843-10-10 03:05 G	42936401.53	42936401.63	42936401.74	0.1802	0.0733

Moon	112851-11-12 16:17 G	42939357.02	42939357.18	42939357.35	0.1574	0.0659
Earth	112851-11-12 17:29 G	42939357.07	42939357.23	42939357.39	0.1574	0.0828 *
Mercury	112853-03-01 12:41 G	42939831.91	42939832.03	42939832.14	0.1811	0.0169
Mercury	112854-03-29 15:05 G	42940224.96	42940225.13	42940225.29	0.1736	0.0345
Mercury	112862-07-22 22:03 G	42943262.33	42943262.42	42943262.52	0.1819	0.1070
Mercury	112863-08-19 13:10 G	42943654.92	42943655.05	42943655.18	0.1727	0.1081
Venus	112864-09-05 15:05 G	42944037.99	42944038.13	42944038.27	0.1668	0.1026
Mercury	112873-11-17 17:29 G	42947398.20	42947398.23	42947398.26	0.1793	0.1704
Mercury	112883-04-10 03:05 G	42950828.53	42950828.63	42950828.73	0.1802	0.0834
Venus	112892-01-21 21:49 G	42954037.24	42954037.41	42954037.58	0.1869	0.0074
Mercury	112892-08-30 12:41 G	42954258.91	42954259.03	42954259.14	0.1810	0.0057
Mercury	112893-09-27 15:49 G	42954652.00	42954652.16	42954652.32	0.1736	0.0522
Mercury	112902-01-21 22:03 G	42957689.32	42957689.42	42957689.52	0.1819	0.0967
Mercury	112903-02-18 13:53 G	42958081.94	42958082.08	42958082.22	0.1727	0.0906
Mercury	112922-10-10 03:05 G	42965255.53	42965255.63	42965255.73	0.1802	0.0951
Venus	112930-07-05 00:56 G	42968080.38	42968080.54	42968080.70	0.1671	0.0715
Earth	112930-11-15 16:46 G	42968214.02	42968214.20	42968214.37	0.1574	0.0649
Moon	112930-11-15 20:08 G	42968214.19	42968214.34	42968214.49	0.1574	0.0859 *
Mercury	112932-03-01 12:41 G	42968685.91	42968686.03	42968686.14	0.1810	0.0066
Mercury	112933-03-29 16:17 G	42969079.03	42969079.18	42969079.34	0.1736	0.0684
Mercury	112941-07-22 22:03 G	42972116.32	42972116.42	42972116.52	0.1819	0.0858
Mercury	112942-08-19 14:37 G	42972508.96	42972509.11	42972509.27	0.1728	0.0727
Mercury	112950-12-13 07:25 G	42975546.79	42975546.81	42975546.83	0.1827	0.1788
Venus	112957-11-19 03:34 G	42978079.49	42978079.65	42978079.81	0.1864	0.0664
Mercury	112962-04-10 03:05 G	42979682.53	42979682.63	42979682.72	0.1801	0.1049
Mercury	112971-08-31 12:27 G	42983112.91	42983113.02	42983113.14	0.1810	0.0175
Mercury	112972-09-27 17:15 G	42983506.08	42983506.22	42983506.37	0.1737	0.0879
Mercury	112981-01-20 22:03 G	42986543.32	42986543.42	42986543.53	0.1818	0.0740
Mercury	112982-02-17 15:20 G	42986935.99	42986936.14	42986936.30	0.1728	0.0554
Mercury	112990-06-13 07:25 G	42989973.76	42989973.81	42989973.85	0.1827	0.1684

Venus 112996-05-01 10:32 G 42992122.77 42992122.94 42992123.12 0.1675 0.0407

114TH MILLENNIUM CE

This is a list of transits visible from Mars in the 114th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	113001-10-10 03:05	G	42994109.54	42994109.63	42994109.71	0.1801	0.1160	
Mercury	113011-03-02 12:41	G	42997539.91	42997540.03	42997540.14	0.1810	0.0283	
Mercury	113012-03-29 18:13	G	42997933.13	42997933.26	42997933.39	0.1737	0.1067	
Mercury	113020-07-22 22:03	G	43000970.31	43000970.42	43000970.52	0.1818	0.0643	
Mercury	113021-08-19 16:17	G	43001363.01	43001363.18	43001363.34	0.1728	0.0382	
Venus	113023-09-17 10:03	G	43002121.79	43002121.92	43002122.05	0.1859	0.1227	
Mercury	113029-12-13 07:25	G	43004400.75	43004400.81	43004400.86	0.1827	0.1569	
Mercury	113041-04-10 03:05	G	43008536.55	43008536.63	43008536.71	0.1801	0.1271	
Mercury	113050-08-31 12:41	G	43011966.91	43011967.03	43011967.14	0.1809	0.0391	
Mercury	113051-09-28 18:41	G	43012360.16	43012360.28	43012360.40	0.1737	0.1226	
Earth	113056-11-13 00:41	G	43014232.52	43014232.53	43014232.54	0.1575	0.1568	
Mercury	113060-01-21 22:03	G	43015397.31	43015397.42	43015397.53	0.1818	0.0529	
Mercury	113061-02-17 17:01	G	43015790.05	43015790.21	43015790.38	0.1729	0.0195	
Venus	113062-02-27 20:37	G	43016165.18	43016165.36	43016165.53	0.1678	0.0095	
Mercury	113069-06-13 07:10	G	43018827.74	43018827.80	43018827.87	0.1826	0.1464	
Mercury	113070-07-10 15:34	G	43019220.09	43019220.15	43019220.21	0.1720	0.1582	
Mercury	113080-10-09 02:51	G	43022963.55	43022963.62	43022963.70	0.1801	0.1376	
Venus	113089-07-14 16:03	G	43026164.14	43026164.17	43026164.21	0.1855	0.1804	

Mercury	113090-03-01 12:27 G	43026393.91	43026394.02	43026394.13	0.1809	0.0492
Mercury	113091-03-29 19:39 G	43026787.23	43026787.32	43026787.42	0.1737	0.1427
Mercury	113099-07-22 22:03 G	43029824.31	43029824.42	43029824.53	0.1818	0.0412
Mercury	113100-08-19 17:44 G	43030217.07	43030217.24	43030217.41	0.1728	0.0029
Mercury	113108-12-13 07:25 G	43033254.73	43033254.81	43033254.88	0.1826	0.1351
Mercury	113110-01-09 16:17 G	43033647.08	43033647.18	43033647.27	0.1720	0.1415
Mercury	113120-04-10 02:51 G	43037390.56	43037390.62	43037390.68	0.1800	0.1480
Venus	113121-07-15 05:44 G	43037851.68	43037851.74	43037851.79	0.1871	0.1747
Venus	113127-12-27 06:13 G	43040207.58	43040207.76	43040207.93	0.1682	0.0229
Mercury	113129-08-31 12:27 G	43040820.91	43040821.02	43040821.13	0.1809	0.0603
Mercury	113130-09-28 20:22 G	43041214.29	43041214.35	43041214.42	0.1737	0.1609
Earth	113135-11-17 01:10 G	43043089.36	43043089.55	43043089.74	0.1575	0.0074
Moon	113135-11-17 04:03 G	43043089.47	43043089.67	43043089.87	0.1575	0.0019 *
Mercury	113139-01-21 22:03 G	43044251.30	43044251.42	43044251.53	0.1818	0.0316
Mercury	113140-02-18 18:27 G	43044644.11	43044644.27	43044644.44	0.1729	0.0167
Mercury	113148-06-13 07:10 G	43047681.72	43047681.80	43047681.89	0.1826	0.1240
Mercury	113149-07-10 17:01 G	43048074.10	43048074.21	43048074.33	0.1720	0.1231
Mercury	113159-10-10 02:51 G	43051817.57	43051817.62	43051817.67	0.1800	0.1600
Mercury	113169-03-01 12:27 G	43055247.92	43055248.02	43055248.13	0.1809	0.0713
Mercury	113178-07-22 22:03 G	43058678.30	43058678.42	43058678.53	0.1817	0.0211
Mercury	113179-08-19 19:25 G	43059071.15	43059071.31	43059071.47	0.1729	0.0344
Venus	113187-05-12 11:29 G	43061893.85	43061893.98	43061894.11	0.1866	0.1141
Mercury	113187-12-13 07:10 G	43062108.72	43062108.80	43062108.89	0.1826	0.1130
Mercury	113189-01-08 17:44 G	43062501.11	43062501.24	43062501.38	0.1721	0.1059
Earth	113191-05-17 10:46 G	43063359.81	43063359.95	43063360.10	0.1968	0.1352
Venus	113193-10-23 15:49 G	43064249.99	43064250.16	43064250.33	0.1685	0.0555
Mercury	113199-04-10 02:51 G	43066244.58	43066244.62	43066244.65	0.1800	0.1696
Mercury	113208-08-30 12:27 G	43069674.92	43069675.02	43069675.12	0.1809	0.0820
Moon	113214-11-18 23:01 G	43071946.43	43071946.46	43071946.49	0.1575	0.1550
Earth	113214-11-19 01:10 G	43071946.47	43071946.55	43071946.63	0.1575	0.1419 *

Mercury	113218-01-20 22:03 G	43073105.30	43073105.42	43073105.53	0.1817	0.0079
Mercury	113219-02-17 20:08 G	43073498.18	43073498.34	43073498.50	0.1729	0.0517
Mercury	113227-06-13 07:10 G	43076535.71	43076535.80	43076535.90	0.1826	0.1021
Mercury	113228-07-09 18:27 G	43076928.13	43076928.27	43076928.41	0.1721	0.0893
Mercury	113248-02-29 12:27 G	43084101.92	43084102.02	43084102.12	0.1808	0.0932
Venus	113253-03-08 17:29 G	43085936.06	43085936.23	43085936.39	0.1861	0.0535
Mercury	113257-07-21 21:49 G	43087532.30	43087532.41	43087532.53	0.1817	0.0058
Mercury	113258-08-18 20:51 G	43087925.22	43087925.37	43087925.53	0.1730	0.0698
Venus	113259-08-21 01:10 G	43088292.40	43088292.55	43088292.71	0.1689	0.0892
Mercury	113266-12-12 07:25 G	43090962.71	43090962.81	43090962.91	0.1826	0.0903
Mercury	113268-01-08 19:25 G	43091355.16	43091355.31	43091355.46	0.1721	0.0702
Mercury	113287-08-30 12:27 G	43098528.93	43098529.02	43098529.11	0.1808	0.1041
Venus	113291-08-20 03:34 G	43099979.61	43099979.65	43099979.70	0.1677	0.1612
Mercury	113297-01-19 21:49 G	43101959.30	43101959.41	43101959.53	0.1817	0.0150
Mercury	113298-02-16 21:49 G	43102352.27	43102352.41	43102352.55	0.1730	0.0889
Mercury	113306-06-13 07:10 G	43105389.70	43105389.80	43105389.91	0.1825	0.0796
Mercury	113307-07-10 20:08 G	43105782.18	43105782.34	43105782.50	0.1721	0.0529
Mercury	113315-11-03 16:32 G	43108820.16	43108820.19	43108820.22	0.1834	0.1750
Venus	113319-01-04 23:29 G	43109978.31	43109978.48	43109978.65	0.1856	0.0067
Venus	113325-06-18 11:01 G	43112334.84	43112334.96	43112335.08	0.1693	0.1219
Mercury	113327-03-01 12:27 G	43112955.93	43112956.02	43112956.11	0.1808	0.1151
Mercury	113336-07-21 22:03 G	43116386.30	43116386.42	43116386.53	0.1816	0.0255
Mercury	113337-08-18 22:32 G	43116779.30	43116779.44	43116779.57	0.1730	0.1060
Moon	113340-11-16 02:51 G	43117964.48	43117964.62	43117964.76	0.1576	0.1076
Earth	113340-11-16 09:05 G	43117964.72	43117964.88	43117965.05	0.1576	0.0795 *
Mercury	113345-12-12 07:10 G	43119816.70	43119816.80	43119816.91	0.1825	0.0682
Mercury	113347-01-08 20:51 G	43120209.21	43120209.37	43120209.54	0.1722	0.0356
Mercury	113355-05-04 16:32 G	43123247.14	43123247.19	43123247.24	0.1834	0.1636
Mercury	113356-05-30 19:53 G	43123639.33	43123639.33	43123639.33	0.1713	0.1713
Venus	113357-06-17 13:10 G	43124021.94	43124022.05	43124022.16	0.1680	0.1292

Mercury	113366-08-30 12:27 G	43127382.94	43127383.02	43127383.10	0.1808	0.1262
Mercury	113376-01-20 21:49 G	43130813.30	43130813.41	43130813.53	0.1816	0.0358
Mercury	113377-02-16 23:15 G	43131206.36	43131206.47	43131206.59	0.1730	0.1252
Venus	113384-11-01 05:44 G	43134020.58	43134020.74	43134020.90	0.1852	0.0625
Mercury	113385-06-12 07:10 G	43134243.69	43134243.80	43134243.91	0.1825	0.0570
Mercury	113386-07-09 21:49 G	43134636.24	43134636.41	43134636.57	0.1722	0.0172
Venus	113391-04-15 19:53 G	43136377.27	43136377.33	43136377.40	0.1696	0.1574
Mercury	113394-11-02 16:32 G	43137674.13	43137674.19	43137674.25	0.1833	0.1517
Mercury	113395-11-29 20:22 G	43138066.28	43138066.35	43138066.42	0.1713	0.1554
Mercury	113406-03-01 12:27 G	43141809.95	43141810.02	43141810.09	0.1807	0.1373
Mercury	113415-07-22 21:49 G	43145240.30	43145240.41	43145240.52	0.1816	0.0472
Mercury	113416-08-19 00:13 G	43145633.42	43145633.51	43145633.60	0.1731	0.1437
Moon	113419-11-20 06:41 G	43146821.61	43146821.78	43146821.95	0.1575	0.0488
Earth	113419-11-20 09:20 G	43146821.72	43146821.89	43146822.06	0.1575	0.0698 *
Venus	113423-04-15 22:46 G	43148064.30	43148064.45	43148064.59	0.1684	0.0974
Mercury	113424-12-12 07:10 G	43148670.69	43148670.80	43148670.92	0.1825	0.0459
Mercury	113426-01-08 22:32 G	43149063.27	43149063.44	43149063.61	0.1722	0.0010
Mercury	113434-05-04 16:32 G	43152101.11	43152101.19	43152101.26	0.1834	0.1413
Mercury	113435-05-31 21:20 G	43152493.29	43152493.39	43152493.49	0.1714	0.1365
Mercury	113445-08-30 12:27 G	43156236.95	43156237.02	43156237.08	0.1808	0.1484
Venus	113450-08-30 12:56 G	43158062.91	43158063.04	43158063.17	0.1847	0.1158
Mercury	113455-01-20 22:03 G	43159667.31	43159667.42	43159667.53	0.1816	0.0591
Mercury	113456-02-18 00:56 G	43160060.48	43160060.54	43160060.60	0.1731	0.1611
Mercury	113464-06-12 07:10 G	43163097.69	43163097.80	43163097.91	0.1824	0.0347
Mercury	113465-07-09 23:15 G	43163490.30	43163490.47	43163490.64	0.1722	0.0182
Mercury	113473-11-02 16:32 G	43166528.11	43166528.19	43166528.27	0.1833	0.1290
Mercury	113474-11-29 22:03 G	43166920.30	43166920.42	43166920.54	0.1714	0.1187
Moon	113475-05-17 23:15 G	43167089.31	43167089.47	43167089.62	0.1966	0.1139
Earth	113475-05-18 07:10 G	43167089.60	43167089.80	43167089.99	0.1966	0.0527 *
Mercury	113485-02-28 12:27 G	43170663.97	43170664.02	43170664.07	0.1807	0.1595

Venus	113489-02-10 08:37 G	43172106.69	43172106.86	43172107.02	0.1687	0.0652
Mercury	113494-07-21 21:49 G	43174094.30	43174094.41	43174094.52	0.1816	0.0690
Mercury	113503-12-13 07:25 G	43177524.69	43177524.81	43177524.92	0.1824	0.0230
Mercury	113505-01-09 00:13 G	43177917.34	43177917.51	43177917.67	0.1723	0.0374
Mercury	113513-05-04 16:32 G	43180955.10	43180955.19	43180955.28	0.1833	0.1179
Mercury	113514-05-31 22:46 G	43181347.31	43181347.45	43181347.58	0.1714	0.1027
Venus	113516-06-27 19:25 G	43182105.25	43182105.31	43182105.37	0.1842	0.1706
Mercury	113524-08-30 12:27 G	43185090.98	43185091.02	43185091.05	0.1807	0.1705
Mercury	113534-01-20 21:49 G	43188521.31	43188521.41	43188521.52	0.1816	0.0810
Mercury	113543-06-13 07:10 G	43191951.69	43191951.80	43191951.92	0.1824	0.0124
Mercury	113544-07-10 00:56 G	43192344.38	43192344.54	43192344.70	0.1723	0.0549
Earth	113545-11-17 17:01 G	43192840.18	43192840.21	43192840.25	0.1577	0.1546
Moon	113545-11-17 23:15 G	43192840.36	43192840.47	43192840.58	0.1577	0.1262
Venus	113548-06-27 07:25 G	43193792.76	43193792.81	43193792.87	0.1858	0.1747
Mercury	113552-11-02 16:32 G	43195382.10	43195382.19	43195382.28	0.1833	0.1066
Mercury	113553-11-29 23:44 G	43195774.34	43195774.49	43195774.63	0.1714	0.0838
Venus	113554-12-09 17:44 G	43196149.07	43196149.24	43196149.42	0.1691	0.0319
Mercury	113573-07-21 21:49 G	43202948.32	43202948.41	43202948.51	0.1815	0.0927
Mercury	113582-12-12 07:10 G	43206378.69	43206378.80	43206378.92	0.1824	0.0049
Mercury	113584-01-09 01:39 G	43206771.42	43206771.57	43206771.72	0.1723	0.0729
Mercury	113592-05-03 16:32 G	43209809.09	43209809.19	43209809.29	0.1832	0.0952
Mercury	113593-05-31 00:27 G	43210201.37	43210201.52	43210201.67	0.1715	0.0656
Mercury	113613-01-19 21:49 G	43217375.32	43217375.41	43217375.50	0.1815	0.1030
Venus	113614-04-24 14:08 G	43217834.96	43217835.09	43217835.22	0.1854	0.1175
Venus	113620-10-06 03:20 G	43220191.46	43220191.64	43220191.82	0.1695	0.0020
Mercury	113622-06-12 07:10 G	43220805.69	43220805.80	43220805.92	0.1824	0.0138
Mercury	113623-07-10 02:22 G	43221198.46	43221198.60	43221198.75	0.1723	0.0916
Earth	113624-11-19 17:44 G	43221697.05	43221697.24	43221697.43	0.1577	0.0025
Moon	113624-11-19 22:32 G	43221697.24	43221697.44	43221697.64	0.1577	0.0202 *
Mercury	113631-11-02 16:32 G	43224236.09	43224236.19	43224236.29	0.1832	0.0833

Mercury	113632-11-29 00:56 G	43224628.38	43224628.54	43224628.70	0.1715	0.0496
Mercury	113641-03-25 01:25 G	43227666.55	43227666.56	43227666.58	0.1841	0.1819
Mercury	113652-07-20 21:49 G	43231802.32	43231802.41	43231802.50	0.1815	0.1145
Mercury	113661-12-11 07:10 G	43235232.69	43235232.80	43235232.92	0.1823	0.0232
Mercury	113663-01-08 03:20 G	43235625.51	43235625.64	43235625.77	0.1724	0.1098
Mercury	113671-05-03 16:32 G	43238663.08	43238663.19	43238663.29	0.1832	0.0725
Mercury	113672-05-30 02:08 G	43239055.42	43239055.59	43239055.75	0.1715	0.0300
Venus	113680-02-19 20:22 G	43241877.19	43241877.35	43241877.51	0.1849	0.0596
Mercury	113680-09-23 01:39 G	43242093.53	43242093.57	43242093.61	0.1840	0.1691
Mercury	113681-10-20 00:56 G	43242485.51	43242485.54	43242485.57	0.1707	0.1661
Venus	113686-08-03 12:41 G	43244233.85	43244234.03	43244234.20	0.1699	0.0365
Mercury	113692-01-19 21:49 G	43246229.33	43246229.41	43246229.50	0.1814	0.1265
Mercury	113701-06-12 07:10 G	43249659.69	43249659.80	43249659.92	0.1823	0.0338
Mercury	113702-07-10 04:03 G	43250052.56	43250052.67	43250052.78	0.1724	0.1280
Moon	113703-11-23 15:20 G	43250554.10	43250554.14	43250554.17	0.1576	0.1550
Earth	113703-11-23 17:58 G	43250554.19	43250554.25	43250554.32	0.1576	0.1483
Mercury	113710-11-02 16:32 G	43253090.08	43253090.19	43253090.30	0.1832	0.0603
Mercury	113711-11-30 02:51 G	43253482.45	43253482.62	43253482.78	0.1715	0.0123
Mercury	113720-03-25 01:25 G	43256520.51	43256520.56	43256520.62	0.1840	0.1592
Mercury	113721-04-21 01:53 G	43256912.50	43256912.58	43256912.66	0.1707	0.1482
Mercury	113731-07-21 21:49 G	43260656.34	43260656.41	43260656.48	0.1815	0.1367
Mercury	113740-12-11 07:25 G	43264086.70	43264086.81	43264086.92	0.1823	0.0463
Mercury	113742-01-08 05:01 G	43264479.62	43264479.71	43264479.79	0.1724	0.1469
Venus	113745-12-18 03:05 G	43265919.46	43265919.63	43265919.80	0.1844	0.0059
Mercury	113750-05-03 16:32 G	43267517.08	43267517.19	43267517.30	0.1831	0.0493
Mercury	113751-05-31 03:20 G	43267909.48	43267909.64	43267909.81	0.1716	0.0055
Venus	113752-05-31 22:03 G	43268276.26	43268276.42	43268276.58	0.1702	0.0707
Mercury	113759-09-24 01:39 G	43270947.50	43270947.57	43270947.63	0.1840	0.1468
Mercury	113760-10-20 02:37 G	43271339.50	43271339.61	43271339.72	0.1708	0.1303
Mercury	113771-01-19 21:49 G	43275083.35	43275083.41	43275083.47	0.1814	0.1487

Mercury	113780-06-11 07:10 G	43278513.69	43278513.80	43278513.91	0.1823	0.0564
Mercury	113781-07-09 05:44 G	43278906.69	43278906.74	43278906.78	0.1724	0.1647
Mercury	113789-11-01 16:32 G	43281944.08	43281944.19	43281944.30	0.1832	0.0376
Mercury	113790-11-29 04:17 G	43282336.52	43282336.68	43282336.85	0.1716	0.0240
Mercury	113799-03-25 01:39 G	43285374.49	43285374.57	43285374.65	0.1840	0.1346
Mercury	113800-04-21 03:20 G	43285766.51	43285766.64	43285766.76	0.1708	0.1132
Mercury	113810-07-21 21:49 G	43289510.36	43289510.41	43289510.46	0.1814	0.1601
Venus	113811-10-16 09:34 G	43289961.74	43289961.90	43289962.07	0.1839	0.0511
Venus	113818-03-30 06:41 G	43292318.65	43292318.78	43292318.92	0.1706	0.1074
Mercury	113819-12-12 07:10 G	43292940.70	43292940.80	43292940.91	0.1823	0.0681
Mercury	113829-05-03 16:32 G	43296371.08	43296371.19	43296371.31	0.1831	0.0262
Moon	113829-11-20 20:08 G	43296572.19	43296572.34	43296572.49	0.1579	0.0931
Earth	113829-11-21 01:39 G	43296572.41	43296572.57	43296572.74	0.1579	0.0764 *
Mercury	113830-05-31 05:15 G	43296763.55	43296763.72	43296763.88	0.1716	0.0423
Mercury	113838-09-24 01:39 G	43299801.48	43299801.57	43299801.65	0.1840	0.1241
Mercury	113839-10-21 04:03 G	43300193.53	43300193.67	43300193.81	0.1708	0.0955
Mercury	113850-01-19 21:49 G	43303937.37	43303937.41	43303937.44	0.1814	0.1708
Venus	113850-03-29 10:32 G	43304005.87	43304005.94	43304006.01	0.1694	0.1541
Mercury	113859-06-12 07:25 G	43307367.70	43307367.81	43307367.91	0.1822	0.0803
Mercury	113868-11-01 16:32 G	43310798.08	43310798.19	43310798.31	0.1831	0.0146
Mercury	113869-11-29 05:44 G	43311190.58	43311190.74	43311190.90	0.1716	0.0587
Venus	113877-08-12 17:01 G	43314004.07	43314004.21	43314004.35	0.1835	0.1024
Mercury	113878-03-25 01:39 G	43314228.48	43314228.57	43314228.66	0.1840	0.1123
Mercury	113879-04-21 05:01 G	43314620.56	43314620.71	43314620.85	0.1708	0.0772
Venus	113884-01-25 16:03 G	43316361.08	43316361.17	43316361.27	0.1710	0.1429
Mercury	113898-12-11 07:10 G	43321794.70	43321794.80	43321794.90	0.1822	0.0910
Mercury	113908-05-03 16:32 G	43325225.07	43325225.19	43325225.30	0.1831	0.0039
Moon	113908-11-24 01:10 G	43325429.40	43325429.55	43325429.71	0.1578	0.0787
Earth	113908-11-24 02:22 G	43325429.43	43325429.60	43325429.77	0.1578	0.0761 *
Mercury	113909-05-31 06:41 G	43325617.63	43325617.78	43325617.93	0.1717	0.0785

Venus	113916-01-25 19:53 G	43328048.21	43328048.33	43328048.46	0.1697	0.1202
Mercury	113917-09-24 01:39 G	43328655.48	43328655.57	43328655.67	0.1839	0.0997
Mercury	113918-10-21 05:29 G	43329047.57	43329047.73	43329047.89	0.1708	0.0607
Mercury	113938-06-12 07:10 G	43336221.71	43336221.80	43336221.90	0.1822	0.1021
Venus	113943-06-10 23:44 G	43338046.41	43338046.49	43338046.58	0.1830	0.1552
Mercury	113947-11-02 16:32 G	43339652.08	43339652.19	43339652.31	0.1830	0.0091
Mercury	113948-11-29 07:25 G	43340044.67	43340044.81	43340044.95	0.1717	0.0963
Mercury	113957-03-25 01:39 G	43343082.47	43343082.57	43343082.67	0.1839	0.0897
Mercury	113958-04-21 06:27 G	43343474.61	43343474.77	43343474.93	0.1709	0.0421
Venus	113975-06-10 10:46 G	43349733.92	43349733.95	43349733.98	0.1846	0.1809
Mercury	113977-12-11 07:25 G	43350648.72	43350648.81	43350648.90	0.1822	0.1147
Venus	113981-11-22 04:46 G	43352090.55	43352090.70	43352090.85	0.1701	0.0848
Mercury	113987-05-03 16:32 G	43354079.07	43354079.19	43354079.30	0.1830	0.0198
Mercury	113988-05-30 08:08 G	43354471.71	43354471.84	43354471.96	0.1717	0.1134
Mercury	113996-09-23 01:39 G	43357509.46	43357509.57	43357509.67	0.1839	0.0771
Mercury	113997-10-20 07:10 G	43357901.64	43357901.80	43357901.97	0.1709	0.0238

115TH MILLENNIUM CE

This is a list of transits visible from Mars in the 115th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	114006-02-13 10:32 G	43360939.91	43360939.94	43360939.97	0.1847	0.1772		
Mercury	114007-03-12 06:27 G	43361331.71	43361331.77	43361331.83	0.1701	0.1579		
Mercury	114017-06-11 07:10 G	43365075.72	43365075.80	43365075.88	0.1821	0.1247		

Mercury 114026-11-01 16:32 G 43368506.08 43368506.19 43368506.30 0.1830 0.0317
 Mercury 114027-11-29 09:05 G 43368898.77 43368898.88 43368898.98 0.1717 0.1331
 Earth 114034-11-21 08:22 G 43371447.81 43371447.85 43371447.90 0.1581 0.1528
 Mercury 114036-03-24 01:39 G 43371936.46 43371936.57 43371936.68 0.1838 0.0651
 Mercury 114037-04-20 07:53 G 43372328.66 43372328.83 43372328.99 0.1709 0.0080
 Venus 114041-04-06 17:44 G 43373776.11 43373776.24 43373776.36 0.1841 0.1258
 Mercury 114045-08-14 10:32 G 43375366.89 43375366.94 43375366.99 0.1847 0.1658
 Mercury 114046-09-10 07:10 G 43375758.71 43375758.80 43375758.89 0.1701 0.1411
 Venus 114047-09-19 14:08 G 43376132.92 43376133.09 43376133.26 0.1705 0.0499
 Mercury 114056-12-10 07:10 G 43379502.73 43379502.80 43379502.88 0.1821 0.1366
 Mercury 114066-05-02 16:32 G 43382933.08 43382933.19 43382933.30 0.1830 0.0429
 Mercury 114067-05-30 09:49 G 43383325.83 43383325.91 43383325.99 0.1718 0.1514
 Mercury 114075-09-23 01:39 G 43386363.46 43386363.57 43386363.68 0.1838 0.0546
 Mercury 114076-10-19 08:37 G 43386755.69 43386755.86 43386756.03 0.1709 0.0112
 Mercury 114085-02-12 10:32 G 43389793.88 43389793.94 43389794.01 0.1847 0.1534
 Mercury 114086-03-11 07:53 G 43390185.72 43390185.83 43390185.95 0.1701 0.1228
 Mercury 114096-06-10 07:10 G 43393929.74 43393929.80 43393929.87 0.1821 0.1487
 Mercury 114105-11-01 16:32 G 43397360.08 43397360.19 43397360.30 0.1829 0.0545
 Mercury 114106-11-29 10:17 G 43397752.90 43397752.93 43397752.96 0.1718 0.1680
 Venus 114107-02-03 00:13 G 43397818.35 43397818.51 43397818.67 0.1837 0.0691
 Venus 114113-07-17 23:01 G 43400175.28 43400175.46 43400175.63 0.1709 0.0137
 Earth 114113-11-24 09:05 G 43400304.69 43400304.88 43400305.07 0.1580 0.0008
 Moon 114113-11-24 15:20 G 43400304.95 43400305.14 43400305.34 0.1580 0.0130 *
 Mercury 114115-03-25 01:39 G 43400790.46 43400790.57 43400790.68 0.1838 0.0427
 Mercury 114116-04-20 09:34 G 43401182.73 43401182.90 43401183.06 0.1710 0.0302
 Earth 114122-05-24 21:20 G 43403408.22 43403408.39 43403408.56 0.1963 0.1015
 Moon 114122-05-25 06:41 G 43403408.67 43403408.78 43403408.88 0.1963 0.1685
 Mercury 114124-08-14 10:32 G 43404220.87 43404220.94 43404221.02 0.1847 0.1423
 Mercury 114125-09-10 08:37 G 43404612.73 43404612.86 43404612.99 0.1702 0.1058
 Mercury 114135-12-11 07:10 G 43408356.75 43408356.80 43408356.85 0.1821 0.1592

Mercury	114145-05-02 16:32 G	43411787.08	43411787.19	43411787.29	0.1830	0.0660
Mercury	114154-09-23 01:39 G	43415217.46	43415217.57	43415217.69	0.1838	0.0303
Mercury	114155-10-20 10:03 G	43415609.76	43415609.92	43415610.08	0.1710	0.0463
Mercury	114164-02-13 10:32 G	43418647.86	43418647.94	43418648.02	0.1846	0.1306
Mercury	114165-03-11 09:20 G	43419039.75	43419039.89	43419040.04	0.1702	0.0884
Venus	114172-11-30 07:10 G	43421860.63	43421860.80	43421860.97	0.1832	0.0160
Mercury	114175-06-11 07:10 G	43422783.76	43422783.80	43422783.84	0.1821	0.1705
Venus	114179-05-15 07:53 G	43424217.65	43424217.83	43424218.00	0.1713	0.0232
Mercury	114184-10-31 16:32 G	43426214.08	43426214.19	43426214.29	0.1829	0.0777
Moon	114192-11-26 09:49 G	43429161.80	43429161.91	43429162.02	0.1579	0.1322
Earth	114192-11-26 10:17 G	43429161.88	43429161.93	43429161.97	0.1579	0.1530 *
Mercury	114194-03-24 01:39 G	43429644.45	43429644.57	43429644.68	0.1838	0.0207
Mercury	114195-04-20 11:01 G	43430036.80	43430036.96	43430037.11	0.1710	0.0655
Mercury	114203-08-15 10:32 G	43433074.86	43433074.94	43433075.03	0.1846	0.1184
Mercury	114204-09-10 10:03 G	43433466.77	43433466.92	43433467.08	0.1702	0.0706
Mercury	114224-05-02 16:32 G	43440641.09	43440641.19	43440641.29	0.1829	0.0889
Mercury	114233-09-23 01:39 G	43444071.45	43444071.57	43444071.68	0.1838	0.0081
Mercury	114234-10-20 11:44 G	43444463.84	43444463.99	43444464.13	0.1710	0.0837
Venus	114238-09-28 14:08 G	43445902.93	43445903.09	43445903.26	0.1827	0.0370
Mercury	114243-02-13 10:32 G	43447501.85	43447501.94	43447502.04	0.1846	0.1073
Mercury	114244-03-11 11:01 G	43447893.80	43447893.96	43447894.11	0.1702	0.0533
Venus	114245-03-12 16:17 G	43448260.02	43448260.18	43448260.35	0.1717	0.0615
Mercury	114263-11-01 16:32 G	43455068.09	43455068.19	43455068.28	0.1829	0.1010
Mercury	114273-03-24 01:39 G	43458498.45	43458498.57	43458498.69	0.1837	0.0044
Mercury	114274-04-20 12:13 G	43458890.88	43458891.01	43458891.15	0.1710	0.1004
Mercury	114282-08-14 10:32 G	43461928.84	43461928.94	43461929.04	0.1846	0.0957
Mercury	114283-09-10 11:29 G	43462320.82	43462320.98	43462321.15	0.1703	0.0360
Mercury	114293-01-30 11:15 G	43465750.95	43465750.97	43465751.00	0.1695	0.1665
Mercury	114303-05-03 16:17 G	43469495.09	43469495.18	43469495.27	0.1828	0.1119
Venus	114304-07-26 21:49 G	43469945.26	43469945.41	43469945.56	0.1822	0.0869

Venus 114311-01-09 01:10 G 43472302.40 43472302.55 43472302.69 0.1721 0.0993
 Mercury 114312-09-23 01:25 G 43472925.45 43472925.56 43472925.68 0.1837 0.0169
 Mercury 114313-10-20 13:10 G 43473317.93 43473318.05 43473318.17 0.1711 0.1192
 Moon 114318-11-25 11:29 G 43475179.81 43475179.98 43475180.14 0.1583 0.0677
 Earth 114318-11-25 15:49 G 43475179.99 43475180.16 43475180.32 0.1583 0.0783 *
 Mercury 114322-02-13 10:32 G 43476355.84 43476355.94 43476356.05 0.1846 0.0833
 Mercury 114323-03-12 12:27 G 43476747.85 43476748.02 43476748.18 0.1703 0.0176
 Mercury 114332-08-01 11:44 G 43480177.92 43480177.99 43480178.07 0.1695 0.1511
 Mercury 114342-11-01 16:17 G 43483922.10 43483922.18 43483922.27 0.1828 0.1235
 Mercury 114352-03-24 01:39 G 43487352.45 43487352.57 43487352.68 0.1837 0.0277
 Mercury 114353-04-20 13:53 G 43487744.99 43487745.08 43487745.18 0.1711 0.1382
 Mercury 114361-08-14 10:32 G 43490782.83 43490782.94 43490783.05 0.1845 0.0722
 Mercury 114362-09-10 13:10 G 43491174.88 43491175.05 43491175.21 0.1703 0.0039
 Venus 114370-05-24 05:00 G 43493987.60 43493987.71 43493987.82 0.1818 0.1376
 Mercury 114371-01-04 19:24 G 43494213.27 43494213.31 43494213.35 0.1854 0.1738
 Mercury 114372-01-31 12:41 G 43494604.93 43494605.03 43494605.13 0.1695 0.1324
 Venus 114376-11-05 08:51 G 43496344.77 43496344.87 43496344.97 0.1725 0.1409
 Mercury 114382-05-02 16:17 G 43498349.11 43498349.18 43498349.26 0.1828 0.1350
 Mercury 114391-09-23 01:39 G 43501779.46 43501779.57 43501779.68 0.1837 0.0394
 Mercury 114392-10-19 14:22 G 43502172.04 43502172.10 43502172.17 0.1711 0.1546
 Earth 114397-11-27 16:17 G 43504037.01 43504037.18 43504037.35 0.1581 0.0750
 Moon 114397-11-27 21:05 G 43504037.24 43504037.38 43504037.52 0.1581 0.0990 *
 Mercury 114401-02-12 10:32 G 43505209.83 43505209.94 43505210.05 0.1845 0.0604
 Mercury 114402-03-11 13:53 G 43505601.91 43505602.08 43505602.24 0.1703 0.0179
 Earth 114406-05-25 17:15 G 43507138.04 43507138.22 43507138.41 0.1959 0.0836
 Moon 114406-05-26 01:53 G 43507138.40 43507138.58 43507138.76 0.1960 0.0650 *
 Venus 114408-11-04 14:22 G 43508031.99 43508032.10 43508032.21 0.1712 0.1333
 Mercury 114410-07-05 19:24 G 43508640.25 43508640.31 43508640.36 0.1854 0.1620
 Mercury 114411-08-01 13:24 G 43509031.94 43509032.06 43509032.18 0.1695 0.1153
 Mercury 114421-10-31 16:17 G 43512776.12 43512776.18 43512776.25 0.1828 0.1467

Mercury	114431-03-24 01:24 G	43516206.45	43516206.56	43516206.67	0.1837	0.0502
Mercury	114440-08-13 10:32 G	43519636.83	43519636.94	43519637.05	0.1845	0.0482
Mercury	114441-09-09 14:36 G	43520028.94	43520029.11	43520029.27	0.1703	0.0355
Mercury	114450-01-03 19:24 G	43523067.24	43523067.31	43523067.38	0.1853	0.1500
Mercury	114451-01-30 13:53 G	43523458.95	43523459.08	43523459.22	0.1696	0.0990
Mercury	114461-05-01 16:17 G	43527203.12	43527203.18	43527203.24	0.1828	0.1575
Venus	114468-03-19 21:34 G	43529717.29	43529717.40	43529717.51	0.1829	0.1352
Mercury	114470-09-22 01:39 G	43530633.46	43530633.57	43530633.67	0.1836	0.0625
Venus	114474-09-01 23:15 G	43532074.32	43532074.47	43532074.61	0.1715	0.0965
Mercury	114480-02-12 10:32 G	43534063.83	43534063.94	43534064.05	0.1845	0.0372
Mercury	114481-03-10 15:20 G	43534455.98	43534456.14	43534456.30	0.1704	0.0532
Mercury	114489-07-04 19:24 G	43537494.23	43537494.31	43537494.38	0.1853	0.1385
Mercury	114490-07-31 14:51 G	43537885.97	43537886.12	43537886.26	0.1696	0.0804
Mercury	114500-10-31 16:17 G	43541630.14	43541630.18	43541630.22	0.1828	0.1699
Mercury	114510-03-24 01:39 G	43545060.46	43545060.57	43545060.67	0.1836	0.0742
Mercury	114519-08-14 10:32 G	43548490.82	43548490.94	43548491.05	0.1845	0.0256
Mercury	114520-09-09 16:03 G	43548883.02	43548883.17	43548883.32	0.1704	0.0710
Moon	114523-11-25 17:29 G	43550055.19	43550055.23	43550055.26	0.1586	0.1552
Mercury	114529-01-03 19:24 G	43551921.23	43551921.31	43551921.39	0.1853	0.1262
Mercury	114530-01-30 15:34 G	43552312.99	43552313.15	43552313.30	0.1696	0.0629
Venus	114534-01-16 04:32 G	43553759.53	43553759.69	43553759.84	0.1824	0.0807
Mercury	114540-05-01 16:17 G	43556057.16	43556057.18	43556057.19	0.1827	0.1806
Venus	114540-06-30 07:39 G	43556116.65	43556116.82	43556116.99	0.1720	0.0579
Mercury	114549-09-22 01:24 G	43559487.46	43559487.56	43559487.66	0.1836	0.0850
Mercury	114559-02-12 10:32 G	43562917.83	43562917.94	43562918.06	0.1844	0.0127
Mercury	114560-03-10 16:46 G	43563310.06	43563310.20	43563310.34	0.1704	0.0892
Mercury	114568-07-04 19:24 G	43566348.22	43566348.31	43566348.40	0.1853	0.1149
Mercury	114569-07-31 16:03 G	43566740.01	43566740.17	43566740.33	0.1696	0.0470
Mercury	114589-03-23 01:24 G	43573914.47	43573914.56	43573914.66	0.1836	0.0971
Mercury	114598-08-13 10:32 G	43577344.82	43577344.94	43577345.05	0.1844	0.0065

Mercury 114599-09-09 17:29 G 43577737.10 43577737.23 43577737.36 0.1704 0.1067

Venus 114599-11-13 11:44 G 43577801.82 43577801.99 43577802.16 0.1819 0.0296

Moon 114602-11-28 17:44 G 43578912.06 43578912.24 43578912.43 0.1584 0.0044

Earth 114602-11-28 22:03 G 43578912.23 43578912.42 43578912.61 0.1584 0.0050 *

Venus 114606-04-28 16:03 G 43580159.00 43580159.17 43580159.35 0.1724 0.0200

Mercury 114608-01-04 19:24 G 43580775.21 43580775.31 43580775.40 0.1853 0.1027

Mercury 114609-01-30 17:00 G 43581167.04 43581167.21 43581167.37 0.1697 0.0281

Mercury 114618-06-22 16:32 G 43584597.14 43584597.19 43584597.25 0.1689 0.1596

Mercury 114628-09-22 01:24 G 43588341.47 43588341.56 43588341.66 0.1835 0.1091

Mercury 114638-02-12 10:32 G 43591771.82 43591771.94 43591772.05 0.1844 0.0116

Mercury 114639-03-11 18:12 G 43592164.15 43592164.26 43592164.37 0.1705 0.1250

Mercury 114647-07-05 19:24 G 43595202.21 43595202.31 43595202.41 0.1852 0.0910

Mercury 114648-07-31 17:44 G 43595594.07 43595594.24 43595594.40 0.1697 0.0114

Mercury 114657-12-21 17:29 G 43599024.14 43599024.23 43599024.32 0.1689 0.1416

Venus 114665-09-10 19:10 G 43601844.13 43601844.30 43601844.47 0.1815 0.0215

Mercury 114668-03-23 01:24 G 43602768.47 43602768.56 43602768.65 0.1836 0.1199

Venus 114672-02-24 00:27 G 43604201.34 43604201.52 43604201.69 0.1728 0.0207

Mercury 114677-08-13 10:32 G 43606198.82 43606198.94 43606199.05 0.1844 0.0226

Mercury 114678-09-09 18:41 G 43606591.20 43606591.28 43606591.38 0.1705 0.1429

Earth 114681-11-30 22:46 G 43607769.40 43607769.45 43607769.51 0.1583 0.1497

Mercury 114687-01-03 19:24 G 43609629.20 43609629.31 43609629.41 0.1852 0.0789

Mercury 114688-01-30 18:12 G 43610021.09 43610021.26 43610021.43 0.1697 0.0063

Mercury 114696-05-26 04:03 G 43613059.66 43613059.67 43613059.69 0.1861 0.1833

Mercury 114697-06-21 18:12 G 43613451.15 43613451.26 43613451.37 0.1689 0.1243

Mercury 114707-09-23 01:24 G 43617195.48 43617195.56 43617195.64 0.1835 0.1320

Mercury 114717-02-12 10:17 G 43620625.82 43620625.93 43620626.05 0.1844 0.0342

Mercury 114718-03-11 19:39 G 43621018.27 43621018.32 43621018.37 0.1705 0.1612

Mercury 114726-07-05 19:24 G 43624056.20 43624056.31 43624056.42 0.1852 0.0672

Mercury 114727-08-01 18:56 G 43624448.13 43624448.29 43624448.46 0.1697 0.0253

Venus 114731-07-10 02:51 G 43625886.47 43625886.62 43625886.78 0.1810 0.0696

Mercury	114735-11-26 04:17 G	43627486.63	43627486.68	43627486.72	0.1860	0.1705
Mercury	114736-12-21 18:41 G	43627878.15	43627878.28	43627878.41	0.1689	0.1080
Venus	114737-12-22 08:36 G	43628243.70	43628243.86	43628244.03	0.1732	0.0605
Mercury	114747-03-24 01:24 G	43631622.49	43631622.56	43631622.63	0.1835	0.1438
Mercury	114756-08-13 10:17 G	43635052.82	43635052.93	43635053.05	0.1843	0.0456
Mercury	114766-01-03 19:24 G	43638483.20	43638483.31	43638483.42	0.1852	0.0551
Mercury	114767-01-30 19:53 G	43638875.16	43638875.33	43638875.49	0.1697	0.0430
Mercury	114775-05-27 04:03 G	43641913.61	43641913.67	43641913.73	0.1860	0.1599
Mercury	114776-06-21 19:24 G	43642305.18	43642305.31	43642305.45	0.1690	0.0900
Mercury	114786-09-22 01:24 G	43646049.50	43646049.56	43646049.62	0.1835	0.1552
Mercury	114796-02-12 10:32 G	43649479.83	43649479.94	43649480.05	0.1843	0.0582
Venus	114797-05-06 10:32 G	43649928.82	43649928.94	43649929.07	0.1805	0.1179
Venus	114803-10-19 16:17 G	43652286.03	43652286.18	43652286.32	0.1737	0.1044
Mercury	114805-07-04 19:24 G	43652910.19	43652910.31	43652910.42	0.1851	0.0439
Mercury	114806-07-31 20:22 G	43653302.19	43653302.35	43653302.50	0.1698	0.0593
Moon	114807-11-28 22:03 G	43653787.28	43653787.42	43653787.56	0.1588	0.1120
Earth	114807-11-29 03:20 G	43653787.48	43653787.64	43653787.80	0.1588	0.0870 *
Mercury	114814-11-25 04:03 G	43656340.60	43656340.67	43656340.74	0.1860	0.1468
Mercury	114815-12-21 20:22 G	43656732.20	43656732.35	43656732.50	0.1690	0.0720
Mercury	114826-03-23 01:24 G	43660476.51	43660476.56	43660476.60	0.1834	0.1672
Mercury	114835-08-13 10:17 G	43663906.82	43663906.93	43663907.04	0.1843	0.0686
Mercury	114845-01-02 19:24 G	43667337.20	43667337.31	43667337.42	0.1852	0.0309
Mercury	114846-01-29 21:20 G	43667729.24	43667729.39	43667729.53	0.1698	0.0788
Mercury	114854-05-26 04:03 G	43670767.60	43670767.67	43670767.75	0.1860	0.1348
Mercury	114855-06-21 20:51 G	43671159.21	43671159.37	43671159.53	0.1690	0.0557
Venus	114863-03-03 18:56 G	43673971.22	43673971.29	43673971.36	0.1801	0.1629
Mercury	114865-09-21 01:24 G	43674903.54	43674903.56	43674903.58	0.1834	0.1789
Venus	114869-08-16 00:12 G	43676328.42	43676328.51	43676328.60	0.1741	0.1464
Mercury	114875-02-11 10:17 G	43678333.83	43678333.93	43678334.04	0.1843	0.0812
Mercury	114884-07-03 19:24 G	43681764.19	43681764.31	43681764.42	0.1851	0.0196

Mercury	114885-07-30 21:48 G	43682156.28	43682156.41	43682156.55	0.1698	0.0965
Moon	114886-12-01 00:56 G	43682644.37	43682644.54	43682644.72	0.1586	0.0480
Earth	114886-12-01 04:32 G	43682644.52	43682644.69	43682644.86	0.1586	0.0700 *
Mercury	114893-11-24 04:03 G	43685194.59	43685194.67	43685194.76	0.1860	0.1232
Mercury	114894-12-20 21:34 G	43685586.24	43685586.40	43685586.57	0.1690	0.0375
Venus	114895-03-03 02:22 G	43685658.51	43685658.60	43685658.70	0.1816	0.1488
Venus	114901-08-16 07:24 G	43688015.70	43688015.81	43688015.91	0.1726	0.1399
Mercury	114904-05-12 21:48 G	43689016.38	43689016.41	43689016.43	0.1683	0.1663
Mercury	114914-08-13 10:32 G	43692760.84	43692760.94	43692761.04	0.1843	0.0938
Mercury	114924-01-03 19:24 G	43696191.19	43696191.31	43696191.42	0.1851	0.0080
Mercury	114925-01-29 22:32 G	43696583.32	43696583.44	43696583.56	0.1698	0.1136
Mercury	114933-05-26 04:03 G	43699621.58	43699621.67	43699621.76	0.1859	0.1109
Mercury	114934-06-21 22:32 G	43700013.27	43700013.44	43700013.60	0.1691	0.0199
Mercury	114943-11-11 22:17 G	43703443.36	43703443.43	43703443.51	0.1683	0.1495
Mercury	114954-02-11 10:17 G	43707187.84	43707187.93	43707188.03	0.1842	0.1045
Venus	114960-12-29 09:48 G	43709700.76	43709700.91	43709701.05	0.1812	0.0968
Mercury	114963-07-04 19:24 G	43710618.19	43710618.31	43710618.42	0.1851	0.0054
Mercury	114964-07-30 23:29 G	43711010.37	43711010.48	43711010.58	0.1698	0.1326
Venus	114967-06-13 15:20 G	43712058.00	43712058.14	43712058.29	0.1731	0.0996
Mercury	114972-11-24 04:17 G	43714048.58	43714048.68	43714048.77	0.1859	0.0981
Mercury	114973-12-20 23:00 G	43714440.29	43714440.46	43714440.62	0.1691	0.0035
Mercury	114983-05-12 23:00 G	43717870.36	43717870.46	43717870.57	0.1684	0.1319
Mercury	114993-08-12 10:17 G	43721614.84	43721614.93	43721615.02	0.1842	0.1166

116TH MILLENNIUM CE

This is a list of transits visible from Mars in the 116th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	115003-01-03 19:24	G	43725045.19	43725045.31	43725045.42	0.1850	0.0171	
Mercury	115004-01-31 00:12	G	43725437.43	43725437.51	43725437.58	0.1699	0.1508	
Mercury	115012-05-26 04:03	G	43728475.57	43728475.67	43728475.77	0.1859	0.0870	
Mercury	115013-06-21 23:44	G	43728867.33	43728867.49	43728867.66	0.1691	0.0168	
Mercury	115022-11-11 23:44	G	43732297.37	43732297.49	43732297.61	0.1683	0.1148	
Venus	115026-10-27 17:29	G	43733743.07	43733743.23	43733743.39	0.1807	0.0482	
Mercury	115033-02-11 10:32	G	43736041.86	43736041.94	43736042.02	0.1842	0.1297	
Venus	115033-04-10 23:44	G	43736100.32	43736100.49	43736100.66	0.1735	0.0599	
Mercury	115042-07-04 19:24	G	43739472.19	43739472.31	43739472.42	0.1850	0.0290	
Mercury	115043-08-01 00:41	G	43739864.51	43739864.53	43739864.55	0.1699	0.1681	
Mercury	115051-11-25 04:03	G	43742902.57	43742902.67	43742902.78	0.1859	0.0741	
Mercury	115052-12-21 00:41	G	43743294.36	43743294.53	43743294.69	0.1691	0.0344	
Moon	115053-06-01 02:22	G	43743456.39	43743456.60	43743456.81	0.1953	0.0305	
Earth	115053-06-01 09:34	G	43743456.71	43743456.90	43743457.08	0.1953	0.0799	*
Mercury	115061-04-16 12:41	G	43746333.01	43746333.03	43746333.05	0.1867	0.1812	
Mercury	115062-05-13 00:27	G	43746724.39	43746724.52	43746724.66	0.1684	0.0973	
Mercury	115072-08-12 10:17	G	43750468.86	43750468.93	43750469.00	0.1842	0.1402	
Mercury	115082-01-02 19:24	G	43753899.20	43753899.31	43753899.42	0.1850	0.0417	
Mercury	115091-05-26 04:03	G	43757329.57	43757329.67	43757329.78	0.1858	0.0622	
Moon	115091-12-02 04:32	G	43757519.49	43757519.69	43757519.88	0.1590	0.0273	
Earth	115091-12-02 09:34	G	43757519.71	43757519.90	43757520.09	0.1590	0.0130	*
Mercury	115092-06-21 01:10	G	43757721.39	43757721.55	43757721.71	0.1691	0.0506	
Venus	115092-08-24 01:24	G	43757785.39	43757785.56	43757785.73	0.1802	0.0011	
Venus	115099-02-06 07:39	G	43760142.65	43760142.82	43760143.00	0.1739	0.0187	
Mercury	115100-10-16 12:41	G	43760759.98	43760760.03	43760760.08	0.1867	0.1683	
Mercury	115101-11-12 01:10	G	43761151.41	43761151.55	43761151.70	0.1684	0.0799	

Mercury	115112-02-12 10:17 G	43764895.87	43764895.93	43764895.99	0.1842	0.1530
Mercury	115121-07-04 19:24 G	43768326.20	43768326.31	43768326.42	0.1850	0.0531
Mercury	115130-11-25 04:03 G	43771756.56	43771756.67	43771756.78	0.1858	0.0501
Mercury	115131-12-22 01:53 G	43772148.43	43772148.58	43772148.74	0.1692	0.0699
Mercury	115140-04-16 12:56 G	43775186.97	43775187.04	43775187.10	0.1866	0.1553
Mercury	115141-05-13 01:53 G	43775578.43	43775578.58	43775578.74	0.1684	0.0620
Mercury	115151-08-13 10:17 G	43779322.89	43779322.93	43779322.98	0.1841	0.1656
Venus	115158-06-22 09:34 G	43781827.74	43781827.90	43781828.07	0.1798	0.0460
Mercury	115161-01-02 19:24 G	43782753.20	43782753.31	43782753.42	0.1850	0.0653
Venus	115164-12-04 15:34 G	43784184.98	43784185.15	43784185.33	0.1744	0.0236
Mercury	115170-05-26 04:03 G	43786183.56	43786183.67	43786183.79	0.1858	0.0378
Moon	115170-12-05 06:27 G	43786376.68	43786376.77	43786376.87	0.1589	0.1348
Earth	115170-12-05 11:29 G	43786376.90	43786376.98	43786377.05	0.1588	0.1452
Mercury	115171-06-22 02:51 G	43786575.48	43786575.62	43786575.76	0.1692	0.0882
Mercury	115179-10-16 12:41 G	43789613.96	43789614.03	43789614.11	0.1866	0.1437
Mercury	115180-11-11 02:36 G	43790005.45	43790005.61	43790005.77	0.1684	0.0446
Mercury	115191-02-11 10:17 G	43793749.90	43793749.93	43793749.96	0.1841	0.1764
Mercury	115200-07-03 19:24 G	43797180.21	43797180.31	43797180.41	0.1850	0.0779
Mercury	115209-11-24 04:17 G	43800610.56	43800610.68	43800610.79	0.1858	0.0245
Mercury	115210-12-21 03:20 G	43801002.51	43801002.64	43801002.77	0.1692	0.1049
Mercury	115219-04-16 12:41 G	43804040.95	43804041.03	43804041.11	0.1866	0.1314
Mercury	115220-05-12 03:20 G	43804432.48	43804432.64	43804432.81	0.1685	0.0267
Venus	115224-04-18 17:58 G	43805870.10	43805870.25	43805870.39	0.1793	0.0917
Mercury	115229-10-02 03:48 G	43807862.60	43807862.66	43807862.72	0.1677	0.1540
Venus	115230-10-01 23:00 G	43808227.30	43808227.46	43808227.62	0.1748	0.0687
Mercury	115240-01-02 19:24 G	43811607.21	43811607.31	43811607.41	0.1849	0.0898
Mercury	115249-05-25 04:03 G	43815037.56	43815037.67	43815037.79	0.1858	0.0137
Mercury	115250-06-21 04:17 G	43815429.57	43815429.68	43815429.79	0.1692	0.1244
Mercury	115258-10-15 12:56 G	43818467.95	43818468.04	43818468.13	0.1866	0.1175
Mercury	115259-11-11 04:03 G	43818859.50	43818859.67	43818859.84	0.1685	0.0093

Mercury	115269-04-02 04:17 G	43822289.59	43822289.68	43822289.78	0.1678	0.1375
Mercury	115279-07-03 19:24 G	43826034.21	43826034.31	43826034.40	0.1849	0.1017
Mercury	115288-11-23 04:17 G	43829464.56	43829464.68	43829464.79	0.1857	0.0036
Mercury	115289-12-20 05:00 G	43829856.62	43829856.71	43829856.80	0.1693	0.1426
Venus	115290-02-14 02:36 G	43829912.50	43829912.61	43829912.72	0.1789	0.1347
Venus	115296-07-29 06:41 G	43832269.65	43832269.78	43832269.92	0.1753	0.1124
Earth	115296-12-01 14:22 G	43832394.95	43832395.10	43832395.25	0.1595	0.0971
Moon	115296-12-01 20:51 G	43832395.20	43832395.37	43832395.54	0.1595	0.0686 *
Mercury	115298-04-15 12:41 G	43832894.94	43832895.03	43832895.13	0.1866	0.1069
Mercury	115299-05-12 04:46 G	43833286.54	43833286.70	43833286.87	0.1685	0.0093
Mercury	115308-10-02 05:15 G	43836716.61	43836716.72	43836716.84	0.1678	0.1187
Mercury	115319-01-02 19:24 G	43840461.22	43840461.31	43840461.40	0.1849	0.1150
Venus	115322-02-14 08:51 G	43841599.82	43841599.87	43841599.93	0.1804	0.1689
Mercury	115328-05-25 04:17 G	43843891.56	43843891.68	43843891.79	0.1857	0.0128
Mercury	115329-06-21 05:29 G	43844283.68	43844283.73	43844283.78	0.1693	0.1595
Moon	115337-06-02 05:29 G	43847186.52	43847186.73	43847186.93	0.1948	0.0594
Earth	115337-06-02 11:15 G	43847186.78	43847186.97	43847187.15	0.1948	0.0739 *
Mercury	115337-10-15 12:56 G	43847321.94	43847322.04	43847322.14	0.1865	0.0935
Mercury	115338-11-11 05:29 G	43847713.57	43847713.73	43847713.90	0.1685	0.0273
Mercury	115348-04-02 05:58 G	43851143.62	43851143.75	43851143.88	0.1678	0.1015
Mercury	115358-07-03 19:24 G	43854888.23	43854888.31	43854888.39	0.1848	0.1261
Venus	115362-05-27 13:53 G	43856312.01	43856312.08	43856312.16	0.1757	0.1589
Mercury	115367-11-24 04:17 G	43858318.56	43858318.68	43858318.79	0.1857	0.0251
Moon	115375-12-05 14:51 G	43861251.94	43861252.12	43861252.30	0.1593	0.0799
Earth	115375-12-05 16:17 G	43861252.00	43861252.18	43861252.35	0.1593	0.0627 *
Mercury	115377-04-15 12:56 G	43861748.94	43861749.04	43861749.15	0.1865	0.0803
Mercury	115378-05-12 06:12 G	43862140.60	43862140.76	43862140.92	0.1685	0.0450
Mercury	115387-10-02 06:27 G	43865570.63	43865570.77	43865570.91	0.1678	0.0852
Venus	115387-12-12 16:46 G	43865642.07	43865642.20	43865642.32	0.1800	0.1201
Venus	115394-05-26 22:46 G	43867999.35	43867999.45	43867999.55	0.1742	0.1405

Mercury	115398-01-01 19:24 G	43869315.23	43869315.31	43869315.38	0.1848	0.1386
Mercury	115407-05-26 04:17 G	43872745.56	43872745.68	43872745.79	0.1857	0.0371
Mercury	115416-10-15 12:56 G	43876175.93	43876176.04	43876176.15	0.1865	0.0687
Mercury	115417-11-11 06:56 G	43876567.64	43876567.79	43876567.95	0.1686	0.0628
Mercury	115426-03-07 21:20 G	43879606.36	43879606.39	43879606.43	0.1873	0.1769
Mercury	115427-04-03 07:24 G	43879997.66	43879997.81	43879997.96	0.1679	0.0661
Mercury	115437-07-03 19:24 G	43883742.25	43883742.31	43883742.38	0.1848	0.1516
Mercury	115446-11-24 04:17 G	43887172.57	43887172.68	43887172.79	0.1856	0.0498
Venus	115453-10-10 01:10 G	43889684.39	43889684.55	43889684.70	0.1795	0.0743
Mercury	115456-04-15 12:56 G	43890602.93	43890603.04	43890603.15	0.1865	0.0562
Mercury	115457-05-12 07:53 G	43890994.68	43890994.83	43890994.97	0.1686	0.0814
Venus	115460-03-24 07:10 G	43892041.65	43892041.80	43892041.94	0.1746	0.0999
Mercury	115465-09-05 21:20 G	43894033.34	43894033.39	43894033.45	0.1873	0.1644
Mercury	115466-10-02 08:08 G	43894424.68	43894424.84	43894425.00	0.1679	0.0489
Mercury	115477-01-01 19:24 G	43898169.26	43898169.31	43898169.36	0.1848	0.1633
Mercury	115486-05-25 04:17 G	43901599.57	43901599.68	43901599.79	0.1856	0.0615
Mercury	115495-10-15 13:10 G	43905029.93	43905030.05	43905030.16	0.1864	0.0426
Mercury	115496-11-10 08:22 G	43905421.72	43905421.85	43905421.99	0.1686	0.0987
Mercury	115505-03-07 21:20 G	43908460.33	43908460.39	43908460.46	0.1872	0.1520
Mercury	115506-04-03 08:51 G	43908851.70	43908851.87	43908852.03	0.1679	0.0320
Mercury	115515-08-24 09:20 G	43912281.84	43912281.89	43912281.95	0.1672	0.1567
Mercury	115516-07-03 19:24 G	43912596.28	43912596.31	43912596.34	0.1848	0.1752
Venus	115519-08-08 09:20 G	43913726.72	43913726.89	43913727.06	0.1790	0.0277
Mercury	115525-11-24 04:17 G	43916026.58	43916026.68	43916026.79	0.1856	0.0747
Venus	115526-01-20 14:36 G	43916083.95	43916084.11	43916084.28	0.1750	0.0568
Mercury	115535-04-16 12:56 G	43919456.93	43919457.04	43919457.16	0.1864	0.0314
Mercury	115536-05-12 09:20 G	43919848.77	43919848.89	43919849.01	0.1687	0.1175
Mercury	115544-09-05 21:34 G	43922887.32	43922887.40	43922887.47	0.1873	0.1387
Mercury	115545-10-02 09:34 G	43923278.73	43923278.90	43923279.07	0.1679	0.0129
Mercury	115555-02-22 10:03 G	43926708.83	43926708.92	43926709.00	0.1672	0.1406

Mercury	115565-05-25 04:17 G	43930453.58	43930453.68	43930453.78	0.1856	0.0866
Mercury	115574-10-15 12:56 G	43933883.93	43933884.04	43933884.16	0.1864	0.0191
Mercury	115575-11-11 10:03 G	43934275.82	43934275.92	43934276.02	0.1687	0.1360
Earth	115580-12-05 20:51 G	43936127.18	43936127.37	43936127.56	0.1597	0.0211
Moon	115580-12-06 02:51 G	43936127.44	43936127.62	43936127.81	0.1597	0.0322 *
Mercury	115584-03-06 21:34 G	43937314.31	43937314.40	43937314.48	0.1872	0.1262
Mercury	115585-04-02 10:17 G	43937705.76	43937705.93	43937706.09	0.1679	0.0049
Venus	115585-06-04 17:58 G	43937769.08	43937769.25	43937769.42	0.1786	0.0159
Venus	115591-11-17 22:17 G	43940126.25	43940126.43	43940126.61	0.1755	0.0126
Mercury	115594-08-23 10:46 G	43941135.84	43941135.95	43941136.06	0.1672	0.1223
Mercury	115604-11-23 04:17 G	43944880.58	43944880.68	43944880.78	0.1856	0.0993
Mercury	115614-04-15 13:10 G	43948310.93	43948311.05	43948311.16	0.1864	0.0057
Mercury	115615-05-12 10:46 G	43948702.88	43948702.95	43948703.01	0.1687	0.1536
Mercury	115623-09-05 21:34 G	43951741.31	43951741.40	43951741.49	0.1872	0.1140
Mercury	115624-10-01 10:46 G	43952132.79	43952132.95	43952133.12	0.1680	0.0219
Mercury	115634-02-21 11:29 G	43955562.86	43955562.98	43955563.11	0.1673	0.1043
Mercury	115644-05-24 04:17 G	43959307.59	43959307.68	43959307.77	0.1855	0.1117
Venus	115651-04-02 02:36 G	43961811.45	43961811.61	43961811.77	0.1781	0.0597
Mercury	115653-10-14 12:56 G	43962737.93	43962738.04	43962738.16	0.1864	0.0097
Venus	115657-09-14 05:29 G	43964168.55	43964168.73	43964168.90	0.1760	0.0344
Earth	115659-12-08 22:32 G	43964984.35	43964984.44	43964984.53	0.1595	0.1392
Moon	115659-12-09 01:10 G	43964984.42	43964984.55	43964984.68	0.1595	0.1222 *
Mercury	115663-03-06 21:34 G	43966168.30	43966168.40	43966168.50	0.1872	0.1004
Mercury	115664-04-01 11:44 G	43966559.83	43966559.99	43966560.15	0.1680	0.0407
Mercury	115673-08-22 11:58 G	43969989.87	43969990.00	43969990.14	0.1673	0.0884
Mercury	115683-11-23 04:17 G	43973734.60	43973734.68	43973734.77	0.1855	0.1244
Mercury	115693-04-14 12:56 G	43977164.93	43977165.04	43977165.16	0.1863	0.0207
Mercury	115702-09-05 21:34 G	43980595.30	43980595.40	43980595.50	0.1871	0.0881
Mercury	115703-10-02 12:27 G	43980986.86	43980987.02	43980987.17	0.1680	0.0583
Mercury	115713-02-21 12:56 G	43984416.89	43984417.04	43984417.19	0.1673	0.0696

Venus	115717-01-28 11:29 G	43985853.85	43985853.98	43985854.12	0.1777	0.1018
Mercury	115723-05-25 04:17 G	43988161.60	43988161.68	43988161.76	0.1855	0.1362
Venus	115723-07-13 12:56 G	43988210.88	43988211.04	43988211.19	0.1764	0.0802
Mercury	115732-10-14 13:10 G	43991591.94	43991592.05	43991592.17	0.1863	0.0333
Mercury	115742-03-06 21:34 G	43995022.29	43995022.40	43995022.51	0.1871	0.0756
Mercury	115743-04-02 12:56 G	43995413.90	43995414.04	43995414.19	0.1680	0.0759
Mercury	115751-07-28 05:58 G	43998452.74	43998452.75	43998452.76	0.1879	0.1862
Mercury	115752-08-22 13:39 G	43998843.91	43998844.07	43998844.23	0.1673	0.0520
Mercury	115762-11-23 04:17 G	44002588.62	44002588.68	44002588.75	0.1855	0.1496
Mercury	115772-04-14 12:56 G	44006018.93	44006019.04	44006019.16	0.1863	0.0448
Mercury	115781-09-04 21:34 G	44009449.29	44009449.40	44009449.51	0.1871	0.0625
Mercury	115782-10-01 13:53 G	44009840.94	44009841.08	44009841.21	0.1680	0.0945
Venus	115782-11-25 20:08 G	44009896.25	44009896.34	44009896.44	0.1772	0.1440
Moon	115785-12-05 17:58 G	44011002.12	44011002.25	44011002.38	0.1603	0.1161
Earth	115785-12-05 23:15 G	44011002.34	44011002.47	44011002.61	0.1603	0.1138 *
Venus	115789-05-09 19:24 G	44012253.20	44012253.31	44012253.43	0.1769	0.1294
Mercury	115791-01-26 05:58 G	44012879.71	44012879.75	44012879.80	0.1879	0.1729
Mercury	115792-02-21 14:08 G	44013270.93	44013271.09	44013271.25	0.1673	0.0356
Mercury	115801-07-14 15:05 G	44016701.09	44016701.13	44016701.18	0.1667	0.1592
Mercury	115802-05-25 04:17 G	44017015.63	44017015.68	44017015.74	0.1854	0.1613
Mercury	115811-10-15 13:10 G	44020445.94	44020446.05	44020446.16	0.1863	0.0576
Venus	115814-11-26 00:56 G	44021583.45	44021583.54	44021583.63	0.1788	0.1479
Mercury	115821-03-06 21:34 G	44023876.29	44023876.40	44023876.51	0.1871	0.0503
Mercury	115822-04-02 14:36 G	44024267.98	44024268.11	44024268.23	0.1681	0.1123
Mercury	115830-07-28 05:58 G	44027306.69	44027306.75	44027306.81	0.1879	0.1611
Mercury	115831-08-23 15:05 G	44027697.96	44027698.13	44027698.29	0.1674	0.0170
Mercury	115841-01-12 15:48 G	44031128.08	44031128.16	44031128.25	0.1667	0.1420
Mercury	115841-11-23 04:17 G	44031442.65	44031442.68	44031442.72	0.1854	0.1742
Mercury	115851-04-15 13:10 G	44034872.94	44034873.05	44034873.16	0.1862	0.0705
Mercury	115860-09-04 21:34 G	44038303.29	44038303.40	44038303.52	0.1871	0.0378

Mercury	115861-10-01 15:05 G	44038695.03	44038695.13	44038695.24	0.1681	0.1299
Earth	115864-12-09 02:36 G	44039859.43	44039859.61	44039859.79	0.1600	0.0529
Moon	115864-12-09 06:27 G	44039859.60	44039859.77	44039859.94	0.1600	0.0621 *
Mercury	115870-01-26 05:58 G	44041733.68	44041733.75	44041733.83	0.1879	0.1475
Mercury	115871-02-21 15:48 G	44042124.99	44042125.16	44042125.32	0.1674	0.0018
Mercury	115880-07-13 16:32 G	44045555.08	44045555.19	44045555.30	0.1667	0.1251
Venus	115880-09-22 09:34 G	44045625.76	44045625.90	44045626.04	0.1783	0.1034
Venus	115887-03-07 13:24 G	44047982.95	44047983.06	44047983.17	0.1758	0.1364
Mercury	115890-10-14 13:10 G	44049299.94	44049300.05	44049300.15	0.1862	0.0822
Mercury	115900-03-06 21:48 G	44052730.29	44052730.41	44052730.52	0.1871	0.0246
Mercury	115901-04-02 16:03 G	44053122.09	44053122.17	44053122.24	0.1681	0.1490
Mercury	115909-07-28 06:12 G	44056160.68	44056160.76	44056160.84	0.1878	0.1349
Mercury	115910-08-23 16:17 G	44056552.01	44056552.18	44056552.34	0.1674	0.0174
Mercury	115920-01-13 17:15 G	44059982.09	44059982.22	44059982.34	0.1667	0.1075
Mercury	115930-04-15 13:10 G	44063726.95	44063727.05	44063727.15	0.1862	0.0950
Mercury	115939-09-05 21:34 G	44067157.29	44067157.40	44067157.52	0.1870	0.0134
Mercury	115940-10-01 16:32 G	44067549.18	44067549.19	44067549.21	0.1681	0.1665
Venus	115946-07-21 17:58 G	44069668.09	44069668.25	44069668.41	0.1779	0.0582
Mercury	115949-01-26 05:58 G	44070587.67	44070587.75	44070587.84	0.1878	0.1226
Mercury	115950-02-21 17:00 G	44070979.05	44070979.21	44070979.38	0.1674	0.0367
Venus	115953-01-02 20:22 G	44072025.20	44072025.35	44072025.51	0.1762	0.0903
Mercury	115959-07-14 17:44 G	44074409.11	44074409.24	44074409.38	0.1667	0.0905
Mercury	115969-10-14 13:10 G	44078153.96	44078154.05	44078154.15	0.1862	0.1084
Mercury	115979-03-06 21:34 G	44081584.29	44081584.40	44081584.52	0.1870	0.0058
Moon	115984-06-09 00:56 G	44083505.35	44083505.54	44083505.72	0.1940	0.0568
Earth	115984-06-09 09:48 G	44083505.76	44083505.91	44083506.07	0.1940	0.1200
Mercury	115988-07-27 06:12 G	44085014.66	44085014.76	44085014.85	0.1878	0.1094
Mercury	115989-08-22 17:44 G	44085406.09	44085406.24	44085406.40	0.1675	0.0542
Mercury	115999-01-12 18:27 G	44088836.13	44088836.27	44088836.42	0.1668	0.0729

117TH MILLENNIUM CE

This is a list of transits visible from Mars in the 117th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	116009-04-14 13:10	G	44092580.96	44092581.05	44092581.13	0.1862	0.1195	
Venus	116012-05-18 03:05	G	44093710.46	44093710.63	44093710.80	0.1774	0.0166	
Mercury	116018-09-04 21:48	G	44096011.29	44096011.41	44096011.52	0.1870	0.0147	
Venus	116018-10-31 03:34	G	44096067.48	44096067.65	44096067.83	0.1767	0.0436	
Mercury	116028-01-26 06:12	G	44099441.66	44099441.76	44099441.86	0.1878	0.0961	
Mercury	116029-02-20 18:27	G	44099833.12	44099833.27	44099833.42	0.1675	0.0710	
Mercury	116038-07-13 19:10	G	44103263.15	44103263.30	44103263.46	0.1668	0.0554	
Mercury	116048-10-13 13:10	G	44107007.97	44107008.05	44107008.13	0.1862	0.1327	
Mercury	116058-03-05 21:48	G	44110438.29	44110438.41	44110438.52	0.1869	0.0268	
Mercury	116067-07-27 06:12	G	44113868.65	44113868.76	44113868.86	0.1878	0.0842	
Mercury	116068-08-21 19:10	G	44114260.16	44114260.30	44114260.44	0.1675	0.0898	
Moon	116069-12-08 21:34	G	44114734.22	44114734.40	44114734.59	0.1606	0.0366	
Earth	116069-12-09 04:03	G	44114734.49	44114734.67	44114734.86	0.1606	0.0415	*
Mercury	116078-01-11 19:53	G	44117690.17	44117690.33	44117690.49	0.1668	0.0385	
Venus	116078-03-15 11:44	G	44117752.82	44117752.99	44117753.16	0.1770	0.0265	
Venus	116084-08-27 10:17	G	44120109.75	44120109.93	44120110.11	0.1771	0.0059	
Mercury	116087-06-03 20:51	G	44121120.34	44121120.37	44121120.40	0.1662	0.1620	
Mercury	116088-04-13 13:10	G	44121434.98	44121435.05	44121435.12	0.1861	0.1455	
Mercury	116097-09-03 21:34	G	44124865.29	44124865.40	44124865.52	0.1869	0.0390	
Mercury	116107-01-26 06:12	G	44128295.65	44128295.76	44128295.87	0.1877	0.0705	

Mercury	116108-02-21 19:53 G	44128687.20	44128687.33	44128687.46	0.1675	0.1078
Mercury	116116-06-17 14:22 G	44131726.08	44131726.10	44131726.12	0.1885	0.1849
Mercury	116117-07-13 20:36 G	44132117.19	44132117.36	44132117.52	0.1668	0.0212
Mercury	116126-12-03 21:34 G	44135547.32	44135547.40	44135547.48	0.1662	0.1440
Mercury	116127-10-14 13:10 G	44135861.99	44135862.05	44135862.11	0.1861	0.1573
Mercury	116137-03-05 21:48 G	44139292.30	44139292.41	44139292.52	0.1869	0.0521
Venus	116144-01-11 20:51 G	44141795.22	44141795.37	44141795.53	0.1765	0.0674
Mercury	116146-07-27 06:12 G	44142722.65	44142722.76	44142722.87	0.1877	0.0582
Mercury	116147-08-22 20:22 G	44143114.24	44143114.35	44143114.46	0.1675	0.1241
Earth	116148-12-12 06:56 G	44143591.67	44143591.79	44143591.91	0.1603	0.1243
Moon	116148-12-12 07:24 G	44143591.73	44143591.81	44143591.90	0.1603	0.1394 *
Venus	116150-06-25 17:00 G	44144152.05	44144152.21	44144152.38	0.1776	0.0549
Mercury	116155-12-17 14:22 G	44146153.05	44146153.10	44146153.15	0.1885	0.1711
Mercury	116157-01-11 21:20 G	44146544.22	44146544.39	44146544.55	0.1669	0.0048
Mercury	116166-06-03 22:17 G	44149974.32	44149974.43	44149974.53	0.1662	0.1270
Mercury	116167-04-14 13:10 G	44150289.00	44150289.05	44150289.09	0.1861	0.1701
Mercury	116176-09-03 21:34 G	44153719.30	44153719.40	44153719.51	0.1869	0.0639
Mercury	116186-01-25 06:12 G	44157149.65	44157149.76	44157149.87	0.1877	0.0454
Mercury	116187-02-20 21:20 G	44157541.30	44157541.39	44157541.47	0.1676	0.1436
Mercury	116195-06-17 14:22 G	44160580.04	44160580.10	44160580.17	0.1885	0.1577
Mercury	116196-07-12 21:48 G	44160971.24	44160971.41	44160971.57	0.1669	0.0140
Mercury	116205-12-03 22:46 G	44164401.33	44164401.45	44164401.57	0.1662	0.1110
Mercury	116206-10-14 13:10 G	44164716.03	44164716.05	44164716.07	0.1860	0.1830
Venus	116209-11-09 05:44 G	44165837.61	44165837.74	44165837.88	0.1761	0.1085
Mercury	116216-03-05 21:34 G	44168146.30	44168146.40	44168146.51	0.1869	0.0766
Venus	116216-04-22 23:15 G	44168194.33	44168194.47	44168194.62	0.1781	0.1070
Mercury	116225-07-27 06:12 G	44171576.65	44171576.76	44171576.88	0.1877	0.0324
Mercury	116226-08-22 21:48 G	44171968.37	44171968.41	44171968.46	0.1676	0.1616
Mercury	116234-12-17 14:22 G	44175007.03	44175007.10	44175007.17	0.1885	0.1457
Mercury	116236-01-12 22:32 G	44175398.28	44175398.44	44175398.60	0.1669	0.0320

Venus 116241-11-08 09:20 G 44177524.88 44177524.89 44177524.91 0.1776 0.1763
 Mercury 116245-06-03 23:29 G 44178828.35 44178828.48 44178828.62 0.1662 0.0927
 Mercury 116255-09-04 21:48 G 44182573.31 44182573.41 44182573.51 0.1869 0.0899
 Mercury 116265-01-25 06:12 G 44186003.65 44186003.76 44186003.88 0.1876 0.0196
 Moon 116268-06-10 05:44 G 44187235.54 44187235.74 44187235.93 0.1933 0.0306
 Earth 116268-06-10 14:36 G 44187235.91 44187236.11 44187236.31 0.1933 0.0146 *
 Mercury 116274-06-17 14:22 G 44189434.02 44189434.10 44189434.18 0.1884 0.1328
 Earth 116274-12-10 04:32 G 44189609.60 44189609.69 44189609.78 0.1612 0.1413
 Moon 116274-12-10 08:51 G 44189609.82 44189609.87 44189609.92 0.1612 0.1547
 Mercury 116275-07-13 23:15 G 44189825.31 44189825.47 44189825.62 0.1669 0.0497
 Venus 116275-09-06 15:20 G 44189880.05 44189880.14 44189880.23 0.1757 0.1478
 Venus 116282-02-18 05:58 G 44192236.67 44192236.75 44192236.83 0.1785 0.1587
 Mercury 116284-12-03 00:12 G 44193255.36 44193255.51 44193255.65 0.1662 0.0761
 Mercury 116295-03-05 21:48 G 44197000.31 44197000.41 44197000.50 0.1868 0.1018
 Mercury 116304-07-27 06:12 G 44200430.64 44200430.76 44200430.88 0.1877 0.0075
 Venus 116307-09-06 18:27 G 44201567.16 44201567.27 44201567.38 0.1771 0.1332
 Mercury 116313-12-17 14:36 G 44203861.02 44203861.11 44203861.20 0.1884 0.1186
 Venus 116314-02-18 17:58 G 44203924.19 44203924.25 44203924.31 0.1769 0.1658
 Mercury 116315-01-12 23:44 G 44204252.34 44204252.49 44204252.64 0.1669 0.0666
 Mercury 116324-06-04 00:41 G 44207682.38 44207682.53 44207682.69 0.1663 0.0590
 Mercury 116334-09-04 21:34 G 44211427.31 44211427.40 44211427.50 0.1868 0.1143
 Mercury 116344-01-26 06:12 G 44214857.65 44214857.76 44214857.88 0.1876 0.0069
 Mercury 116353-06-17 14:22 G 44218288.01 44218288.10 44218288.20 0.1884 0.1074
 Moon 116353-12-13 02:08 G 44218466.39 44218466.59 44218466.79 0.1610 0.0011
 Earth 116353-12-13 07:53 G 44218466.64 44218466.83 44218467.02 0.1610 0.0292 *
 Mercury 116354-07-14 00:27 G 44218679.38 44218679.52 44218679.66 0.1670 0.0849
 Mercury 116363-12-04 01:24 G 44222109.40 44222109.56 44222109.72 0.1663 0.0411
 Mercury 116373-04-25 02:36 G 44225539.59 44225539.61 44225539.63 0.1656 0.1636
 Venus 116373-07-04 02:51 G 44225609.48 44225609.62 44225609.77 0.1767 0.0892
 Mercury 116374-03-05 21:48 G 44225854.33 44225854.41 44225854.49 0.1868 0.1279

Venus	116379-12-17 00:27 G	44227966.39	44227966.52	44227966.66	0.1774	0.1168
Mercury	116383-07-27 06:12 G	44229284.64	44229284.76	44229284.88	0.1876	0.0184
Mercury	116392-12-16 14:22 G	44232715.00	44232715.10	44232715.21	0.1884	0.0937
Mercury	116394-01-12 01:10 G	44233106.42	44233106.55	44233106.68	0.1670	0.1031
Mercury	116403-06-04 02:08 G	44236536.42	44236536.59	44236536.75	0.1663	0.0242
Mercury	116412-10-24 03:20 G	44239966.57	44239966.64	44239966.72	0.1657	0.1457
Mercury	116413-09-03 21:34 G	44240281.33	44240281.40	44240281.48	0.1868	0.1392
Mercury	116423-01-25 06:12 G	44243711.65	44243711.76	44243711.88	0.1876	0.0317
Mercury	116432-06-16 14:36 G	44247142.00	44247142.11	44247142.21	0.1883	0.0803
Mercury	116433-07-13 01:39 G	44247533.46	44247533.57	44247533.69	0.1670	0.1197
Venus	116439-05-01 12:12 G	44249651.85	44249652.01	44249652.17	0.1762	0.0485
Mercury	116442-12-03 02:36 G	44250963.45	44250963.61	44250963.78	0.1663	0.0074
Venus	116445-10-13 07:10 G	44252008.64	44252008.80	44252008.97	0.1779	0.0669
Mercury	116452-04-24 04:03 G	44254393.57	44254393.67	44254393.77	0.1657	0.1284
Mercury	116453-03-04 21:48 G	44254708.34	44254708.41	44254708.47	0.1867	0.1524
Mercury	116462-07-26 06:12 G	44258138.65	44258138.76	44258138.87	0.1875	0.0443
Mercury	116471-12-16 14:22 G	44261568.99	44261569.10	44261569.21	0.1883	0.0684
Mercury	116473-01-11 02:22 G	44261960.51	44261960.60	44261960.70	0.1670	0.1383
Mercury	116481-05-07 22:46 G	44264999.42	44264999.45	44264999.47	0.1891	0.1827
Mercury	116482-06-03 03:20 G	44265390.48	44265390.64	44265390.81	0.1663	0.0113
Mercury	116491-10-24 04:32 G	44268820.57	44268820.69	44268820.81	0.1657	0.1127
Mercury	116492-09-02 21:48 G	44269135.36	44269135.41	44269135.46	0.1867	0.1658
Mercury	116502-01-25 06:12 G	44272565.65	44272565.76	44272565.87	0.1875	0.0570
Venus	116505-02-26 21:20 G	44273694.22	44273694.39	44273694.56	0.1758	0.0075
Mercury	116511-06-17 14:22 G	44275995.99	44275996.10	44275996.22	0.1883	0.0554
Venus	116511-08-11 13:24 G	44276050.89	44276051.06	44276051.24	0.1784	0.0153
Mercury	116512-07-13 03:05 G	44276387.58	44276387.63	44276387.69	0.1670	0.1564
Mercury	116520-11-06 22:46 G	44279426.40	44279426.45	44279426.50	0.1891	0.1698
Mercury	116521-12-03 04:03 G	44279817.51	44279817.67	44279817.83	0.1664	0.0282
Mercury	116531-04-25 05:15 G	44283247.59	44283247.72	44283247.86	0.1657	0.0945

Mercury	116532-03-04 21:34 G	44283562.37	44283562.40	44283562.44	0.1867	0.1773
Mercury	116541-07-26 06:12 G	44286992.65	44286992.76	44286992.87	0.1875	0.0698
Mercury	116550-12-16 14:36 G	44290423.00	44290423.11	44290423.22	0.1883	0.0408
Moon	116552-06-11 12:12 G	44290965.87	44290966.01	44290966.15	0.1925	0.1348
Earth	116552-06-11 21:05 G	44290966.24	44290966.38	44290966.52	0.1926	0.1362
Earth	116558-12-13 07:24 G	44293341.64	44293341.81	44293341.98	0.1616	0.0743
Moon	116558-12-13 13:53 G	44293341.89	44293342.08	44293342.26	0.1616	0.0472 *
Mercury	116560-05-07 22:32 G	44293853.38	44293853.44	44293853.51	0.1891	0.1574
Mercury	116561-06-03 04:32 G	44294244.54	44294244.69	44294244.85	0.1664	0.0459
Mercury	116570-10-24 05:58 G	44297674.61	44297674.75	44297674.89	0.1657	0.0774
Venus	116570-12-25 06:41 G	44297736.61	44297736.78	44297736.95	0.1754	0.0320
Venus	116577-06-07 19:39 G	44300093.15	44300093.32	44300093.50	0.1788	0.0369
Mercury	116581-01-24 06:12 G	44301419.66	44301419.76	44301419.87	0.1875	0.0830
Mercury	116590-06-16 14:22 G	44304849.99	44304850.10	44304850.22	0.1883	0.0301
Mercury	116599-11-06 22:46 G	44308280.38	44308280.45	44308280.53	0.1891	0.1427
Mercury	116600-12-03 05:15 G	44308671.57	44308671.72	44308671.87	0.1664	0.0635
Mercury	116610-04-25 06:27 G	44312101.62	44312101.77	44312101.92	0.1658	0.0613
Mercury	116620-07-26 06:12 G	44315846.66	44315846.76	44315846.86	0.1875	0.0952
Mercury	116629-12-16 14:36 G	44319276.99	44319277.11	44319277.22	0.1883	0.0157
Venus	116636-10-22 16:03 G	44321779.01	44321779.17	44321779.32	0.1749	0.0713
Moon	116637-12-16 08:22 G	44322198.70	44322198.85	44322199.00	0.1613	0.1072
Earth	116637-12-16 10:46 G	44322198.80	44322198.95	44322199.11	0.1613	0.0983 *
Mercury	116639-05-08 22:46 G	44322707.36	44322707.45	44322707.53	0.1890	0.1311
Mercury	116640-06-03 05:58 G	44323098.61	44323098.75	44323098.89	0.1664	0.0811
Venus	116643-04-06 01:39 G	44324135.42	44324135.57	44324135.73	0.1793	0.0913
Mercury	116649-10-24 07:10 G	44326528.65	44326528.80	44326528.96	0.1658	0.0429
Mercury	116659-03-16 08:36 G	44329958.85	44329958.86	44329958.88	0.1651	0.1635
Mercury	116660-01-25 06:12 G	44330273.67	44330273.76	44330273.86	0.1875	0.1089
Mercury	116669-06-16 14:36 G	44333703.99	44333704.11	44333704.23	0.1882	0.0024
Mercury	116678-11-06 22:46 G	44337134.36	44337134.45	44337134.54	0.1890	0.1174

Mercury	116679-12-03 06:41 G	44337525.64	44337525.78	44337525.91	0.1665	0.0986
Mercury	116689-04-24 07:53 G	44340955.67	44340955.83	44340955.99	0.1658	0.0253
Mercury	116698-09-14 09:20 G	44344385.82	44344385.89	44344385.96	0.1652	0.1465
Mercury	116699-07-26 06:12 G	44344700.67	44344700.76	44344700.85	0.1874	0.1212
Venus	116702-08-21 01:53 G	44345821.44	44345821.58	44345821.71	0.1745	0.1092
Mercury	116708-12-16 14:36 G	44348130.99	44348131.11	44348131.22	0.1882	0.0111
Venus	116709-02-01 07:53 G	44348177.73	44348177.83	44348177.93	0.1798	0.1453
Mercury	116718-05-08 22:46 G	44351561.36	44351561.45	44351561.55	0.1890	0.1036
Mercury	116719-06-04 07:24 G	44351952.69	44351952.81	44351952.92	0.1665	0.1171
Mercury	116728-10-24 08:22 G	44355382.69	44355382.85	44355383.01	0.1658	0.0093
Venus	116734-08-20 03:48 G	44357508.60	44357508.66	44357508.71	0.1760	0.1652
Mercury	116738-03-16 10:03 G	44358812.82	44358812.92	44358813.02	0.1652	0.1292
Mercury	116739-01-25 06:12 G	44359127.68	44359127.76	44359127.84	0.1874	0.1341
Mercury	116748-06-16 14:36 G	44362557.99	44362558.11	44362558.23	0.1882	0.0235
Mercury	116757-11-06 22:46 G	44365988.35	44365988.45	44365988.55	0.1889	0.0909
Mercury	116758-12-03 07:53 G	44366379.74	44366379.83	44366379.93	0.1665	0.1344
Mercury	116768-04-24 09:05 G	44369809.72	44369809.88	44369810.05	0.1658	0.0103
Venus	116768-06-17 11:15 G	44369863.88	44369863.97	44369864.06	0.1741	0.1470
Mercury	116777-09-14 10:32 G	44373239.82	44373239.94	44373240.06	0.1652	0.1128
Mercury	116778-07-26 06:12 G	44373554.69	44373554.76	44373554.83	0.1874	0.1473
Mercury	116787-12-16 14:36 G	44376985.00	44376985.11	44376985.23	0.1881	0.0382
Mercury	116797-05-07 22:46 G	44380415.34	44380415.45	44380415.56	0.1889	0.0783
Mercury	116798-06-03 08:36 G	44380806.80	44380806.86	44380806.92	0.1665	0.1524
Venus	116800-06-16 12:41 G	44381550.91	44381551.03	44381551.15	0.1755	0.1234
Venus	116806-11-29 03:20 G	44383907.53	44383907.64	44383907.75	0.1786	0.1379
Mercury	116807-10-24 09:48 G	44384236.75	44384236.91	44384237.07	0.1658	0.0269
Mercury	116817-03-15 11:15 G	44387666.84	44387666.97	44387667.11	0.1652	0.0951
Mercury	116818-01-24 06:12 G	44387981.71	44387981.76	44387981.82	0.1873	0.1604
Mercury	116827-06-16 14:36 G	44391412.00	44391412.11	44391412.22	0.1882	0.0490
Mercury	116836-11-05 23:00 G	44394842.35	44394842.46	44394842.57	0.1889	0.0634

Earth	116842-12-16 09:34 G	44397073.71	44397073.90	44397074.09	0.1620	0.0070
Moon	116842-12-16 15:34 G	44397073.96	44397074.15	44397074.34	0.1620	0.0020 *
Mercury	116846-03-29 06:41 G	44398272.75	44398272.78	44398272.81	0.1896	0.1821
Mercury	116847-04-24 10:17 G	44398663.77	44398663.93	44398664.09	0.1659	0.0436
Mercury	116856-09-13 11:58 G	44402093.86	44402094.00	44402094.14	0.1653	0.0777
Mercury	116857-07-25 06:12 G	44402408.72	44402408.76	44402408.80	0.1873	0.1726
Venus	116866-04-13 22:32 G	44405593.29	44405593.44	44405593.59	0.1751	0.0847
Mercury	116866-12-15 14:36 G	44405839.00	44405839.11	44405839.22	0.1881	0.0635
Venus	116872-09-25 09:48 G	44407949.76	44407949.91	44407950.07	0.1791	0.0868
Mercury	116876-05-06 22:46 G	44409269.34	44409269.45	44409269.56	0.1889	0.0517
Mercury	116885-09-27 06:41 G	44412699.73	44412699.78	44412699.84	0.1897	0.1688
Mercury	116886-10-23 11:15 G	44413090.81	44413090.97	44413091.12	0.1659	0.0625
Mercury	116896-03-14 12:27 G	44416520.87	44416521.02	44416521.17	0.1653	0.0612
Mercury	116897-01-23 06:12 G	44416835.76	44416835.76	44416835.77	0.1873	0.1867
Mercury	116906-06-16 14:36 G	44420266.01	44420266.11	44420266.22	0.1881	0.0767
Moon	116915-06-18 10:03 G	44423554.79	44423554.92	44423555.05	0.1923	0.1369
Earth	116915-06-18 16:32 G	44423555.17	44423555.19	44423555.22	0.1923	0.1901
Mercury	116915-11-06 23:00 G	44423696.34	44423696.46	44423696.57	0.1889	0.0384
Mercury	116925-03-29 06:56 G	44427126.72	44427126.79	44427126.85	0.1896	0.1550
Mercury	116926-04-24 11:44 G	44427517.85	44427517.99	44427518.14	0.1659	0.0802
Venus	116932-02-10 07:53 G	44429635.66	44429635.83	44429635.99	0.1747	0.0446
Mercury	116935-09-14 13:10 G	44430947.89	44430948.05	44430948.21	0.1653	0.0435
Venus	116938-07-24 15:48 G	44431991.99	44431992.16	44431992.34	0.1796	0.0328
Mercury	116945-02-03 15:05 G	44434378.10	44434378.13	44434378.16	0.1647	0.1617
Mercury	116945-12-15 14:36 G	44434693.01	44434693.11	44434693.22	0.1881	0.0892
Mercury	116955-05-07 23:00 G	44438123.34	44438123.46	44438123.57	0.1889	0.0237
Mercury	116964-09-27 06:56 G	44441553.71	44441553.79	44441553.86	0.1896	0.1417
Mercury	116965-10-23 12:12 G	44441944.88	44441945.01	44441945.15	0.1659	0.0966
Mercury	116975-03-15 13:53 G	44445374.92	44445375.08	44445375.24	0.1653	0.0255
Mercury	116984-08-04 15:34 G	44448805.08	44448805.15	44448805.23	0.1647	0.1452

Mercury	116985-06-15 14:51 G	44449120.02	44449120.12	44449120.21	0.1881	0.1029
Mercury	116994-11-05 23:00 G	44452550.34	44452550.46	44452550.57	0.1888	0.0122
Venus	116997-12-07 17:44 G	44453678.07	44453678.24	44453678.41	0.1743	0.0081

118TH MILLENNIUM CE

This is a list of transits visible from Mars in the 118th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	117004-03-29 06:56 G		44455980.70	44455980.79	44455980.87	0.1896	0.1282	
Venus	117004-05-21 21:48 G		44456034.24	44456034.41	44456034.59	0.1801	0.0214	
Mercury	117005-04-24 13:10 G		44456371.93	44456372.05	44456372.17	0.1660	0.1159	
Mercury	117014-09-14 14:22 G		44459801.94	44459802.10	44459802.27	0.1653	0.0097	
Mercury	117024-02-04 16:17 G		44463232.08	44463232.18	44463232.28	0.1647	0.1285	
Mercury	117024-12-15 14:51 G		44463547.03	44463547.12	44463547.21	0.1880	0.1164	
Mercury	117034-05-07 23:00 G		44466977.34	44466977.46	44466977.57	0.1888	0.0059	
Mercury	117043-09-28 06:56 G		44470407.70	44470407.79	44470407.89	0.1895	0.1143	
Mercury	117044-10-23 13:53 G		44470798.98	44470799.08	44470799.17	0.1660	0.1337	
Moon	117047-12-17 00:56 G		44471948.44	44471948.54	44471948.64	0.1628	0.1386	
Earth	117047-12-17 07:39 G		44471948.69	44471948.82	44471948.96	0.1628	0.1159	
Mercury	117054-03-15 15:20 G		44474228.97	44474229.14	44474229.30	0.1653	0.0102	
Mercury	117063-08-05 17:00 G		44477659.09	44477659.21	44477659.33	0.1647	0.1108	
Venus	117063-10-06 03:34 G		44477720.48	44477720.65	44477720.82	0.1738	0.0297	
Mercury	117064-06-15 14:36 G		44477974.03	44477974.11	44477974.20	0.1880	0.1285	
Venus	117070-03-19 03:34 G		44480076.50	44480076.65	44480076.81	0.1805	0.0781	

Mercury	117073-11-05 23:00 G	44481404.35	44481404.46	44481404.58	0.1888	0.0182
Mercury	117083-03-29 06:56 G	44484834.70	44484834.79	44484834.89	0.1895	0.1011
Mercury	117084-04-23 14:22 G	44485226.03	44485226.10	44485226.17	0.1660	0.1508
Mercury	117093-09-13 15:48 G	44488656.00	44488656.16	44488656.32	0.1654	0.0272
Mercury	117103-02-04 17:29 G	44492086.10	44492086.23	44492086.37	0.1648	0.0938
Mercury	117103-12-16 14:51 G	44492401.05	44492401.12	44492401.19	0.1880	0.1428
Mercury	117113-05-07 23:00 G	44495831.34	44495831.46	44495831.57	0.1888	0.0287
Mercury	117122-09-28 06:56 G	44499261.69	44499261.79	44499261.90	0.1895	0.0876
Earth	117126-12-20 12:27 G	44500805.84	44500806.02	44500806.19	0.1624	0.0628
Moon	117126-12-20 13:24 G	44500805.89	44500806.06	44500806.23	0.1624	0.0568 *
Venus	117129-08-03 13:39 G	44501762.91	44501763.07	44501763.23	0.1735	0.0660
Mercury	117133-03-15 16:32 G	44503083.03	44503083.19	44503083.34	0.1654	0.0441
Venus	117136-01-15 09:20 G	44504118.78	44504118.89	44504119.01	0.1810	0.1344
Mercury	117142-08-05 18:12 G	44506513.12	44506513.26	44506513.40	0.1648	0.0769
Mercury	117143-06-16 14:51 G	44506828.06	44506828.12	44506828.18	0.1880	0.1558
Mercury	117152-11-05 23:00 G	44510258.35	44510258.46	44510258.58	0.1887	0.0428
Mercury	117162-03-29 07:10 G	44513688.69	44513688.80	44513688.91	0.1895	0.0737
Mercury	117172-09-13 17:15 G	44517510.07	44517510.22	44517510.37	0.1654	0.0623
Mercury	117182-02-03 18:56 G	44520940.14	44520940.29	44520940.44	0.1648	0.0587
Mercury	117182-12-15 14:51 G	44521255.07	44521255.12	44521255.17	0.1880	0.1688
Mercury	117192-05-06 23:15 G	44524685.36	44524685.47	44524685.58	0.1887	0.0572
Venus	117195-05-31 23:44 G	44525805.35	44525805.49	44525805.62	0.1730	0.1018
Moon	117199-06-19 18:27 G	44527285.10	44527285.27	44527285.45	0.1915	0.0767
Earth	117199-06-20 03:05 G	44527285.46	44527285.63	44527285.81	0.1915	0.0867
Mercury	117201-09-27 07:10 G	44528115.69	44528115.80	44528115.91	0.1895	0.0603
Mercury	117211-02-17 15:05 G	44531546.09	44531546.13	44531546.16	0.1902	0.1799
Mercury	117212-03-14 17:58 G	44531937.11	44531937.25	44531937.39	0.1654	0.0808
Mercury	117221-08-04 19:24 G	44535367.16	44535367.31	44535367.47	0.1648	0.0420
Mercury	117222-06-15 14:51 G	44535682.10	44535682.12	44535682.15	0.1879	0.1822
Venus	117227-05-31 00:12 G	44537492.45	44537492.51	44537492.57	0.1744	0.1632

Mercury	117230-12-25 21:34 G	44538797.36	44538797.40	44538797.44	0.1642	0.1592
Mercury	117231-11-05 23:00 G	44539112.36	44539112.46	44539112.57	0.1887	0.0696
Venus	117233-11-11 05:58 G	44539848.67	44539848.75	44539848.84	0.1799	0.1577
Mercury	117241-03-28 07:10 G	44542542.69	44542542.80	44542542.91	0.1895	0.0463
Mercury	117250-08-18 15:05 G	44545973.08	44545973.13	44545973.19	0.1902	0.1657
Mercury	117251-09-13 18:27 G	44546364.14	44546364.27	44546364.40	0.1654	0.0974
Mercury	117261-02-02 20:08 G	44549794.18	44549794.34	44549794.50	0.1649	0.0245
Venus	117261-03-28 09:48 G	44549847.81	44549847.91	44549848.01	0.1727	0.1374
Mercury	117270-06-25 22:03 G	44553224.35	44553224.42	44553224.50	0.1643	0.1422
Mercury	117271-05-06 23:00 G	44553539.36	44553539.46	44553539.57	0.1887	0.0830
Mercury	117280-09-26 07:10 G	44556969.69	44556969.80	44556969.92	0.1894	0.0331
Mercury	117290-02-16 15:05 G	44560400.06	44560400.13	44560400.20	0.1902	0.1530
Mercury	117291-03-14 19:10 G	44560791.19	44560791.30	44560791.42	0.1655	0.1161
Venus	117293-03-27 10:17 G	44561534.81	44561534.93	44561535.04	0.1740	0.1261
Venus	117299-09-08 12:12 G	44563890.87	44563891.01	44563891.16	0.1803	0.1049
Mercury	117300-08-04 20:51 G	44564221.21	44564221.37	44564221.53	0.1648	0.0067
Mercury	117309-12-25 22:46 G	44567651.34	44567651.45	44567651.55	0.1643	0.1260
Mercury	117310-11-05 23:15 G	44567966.37	44567966.47	44567966.57	0.1887	0.0980
Mercury	117320-03-28 07:10 G	44571396.69	44571396.80	44571396.92	0.1894	0.0203
Mercury	117329-08-18 15:05 G	44574827.05	44574827.13	44574827.21	0.1901	0.1388
Mercury	117330-09-13 19:53 G	44575218.24	44575218.33	44575218.43	0.1655	0.1343
Moon	117331-12-20 03:20 G	44575680.45	44575680.64	44575680.84	0.1632	0.0362
Earth	117331-12-20 09:34 G	44575680.72	44575680.90	44575681.08	0.1632	0.0489 *
Mercury	117340-02-03 21:34 G	44578648.23	44578648.40	44578648.56	0.1649	0.0112
Mercury	117349-06-25 23:29 G	44582078.36	44582078.48	44582078.60	0.1643	0.1078
Mercury	117350-05-06 23:15 G	44582393.37	44582393.47	44582393.56	0.1886	0.1096
Venus	117359-01-23 19:53 G	44585577.18	44585577.33	44585577.47	0.1736	0.0875
Mercury	117359-09-27 07:24 G	44585823.69	44585823.81	44585823.92	0.1894	0.0069
Venus	117365-07-06 17:44 G	44587933.07	44587933.24	44587933.42	0.1808	0.0485
Mercury	117369-02-16 15:20 G	44589254.05	44589254.14	44589254.23	0.1901	0.1240

Mercury	117370-03-14 20:22 G	44589645.29	44589645.35	44589645.42	0.1655	0.1514
Mercury	117379-08-04 22:03 G	44593075.26	44593075.42	44593075.58	0.1649	0.0284
Mercury	117388-12-24 23:58 G	44596505.37	44596505.50	44596505.64	0.1643	0.0908
Mercury	117389-11-04 23:15 G	44596820.38	44596820.47	44596820.56	0.1886	0.1237
Mercury	117399-03-28 07:24 G	44600250.69	44600250.81	44600250.93	0.1893	0.0087
Mercury	117408-08-18 15:05 G	44603681.04	44603681.13	44603681.23	0.1901	0.1118
Moon	117410-12-23 10:17 G	44604537.84	44604537.93	44604538.01	0.1629	0.1440
Earth	117410-12-23 15:05 G	44604538.03	44604538.13	44604538.24	0.1629	0.1335
Mercury	117419-02-03 22:46 G	44607502.29	44607502.45	44607502.61	0.1649	0.0463
Venus	117424-11-21 06:12 G	44609619.59	44609619.76	44609619.92	0.1732	0.0524
Mercury	117428-06-26 00:41 G	44610932.38	44610932.53	44610932.67	0.1643	0.0746
Mercury	117429-05-06 23:15 G	44611247.40	44611247.47	44611247.55	0.1886	0.1380
Venus	117431-05-04 23:44 G	44611975.31	44611975.49	44611975.66	0.1813	0.0093
Mercury	117438-09-27 07:24 G	44614677.69	44614677.81	44614677.93	0.1893	0.0217
Mercury	117448-02-17 15:20 G	44618108.04	44618108.14	44618108.24	0.1901	0.0967
Mercury	117458-08-04 23:29 G	44621929.33	44621929.48	44621929.63	0.1649	0.0638
Mercury	117467-12-26 01:24 G	44625359.41	44625359.56	44625359.71	0.1644	0.0561
Mercury	117468-11-04 23:15 G	44625674.40	44625674.47	44625674.54	0.1886	0.1503
Mercury	117478-03-28 07:24 G	44629104.70	44629104.81	44629104.93	0.1893	0.0365
Moon	117483-06-21 09:05 G	44631015.68	44631015.88	44631016.09	0.1907	0.0104
Earth	117483-06-21 16:46 G	44631016.01	44631016.20	44631016.40	0.1907	0.0025 *
Mercury	117487-08-18 15:20 G	44632535.04	44632535.14	44632535.25	0.1900	0.0830
Venus	117490-09-18 16:17 G	44633662.01	44633662.18	44633662.35	0.1728	0.0161
Venus	117497-03-01 05:00 G	44636017.55	44636017.71	44636017.88	0.1818	0.0673
Mercury	117498-02-02 23:58 G	44636356.36	44636356.50	44636356.65	0.1650	0.0816
Mercury	117507-06-27 02:08 G	44639786.43	44639786.59	44639786.74	0.1644	0.0388
Mercury	117508-05-06 23:15 G	44640101.42	44640101.47	44640101.53	0.1886	0.1640
Mercury	117516-11-16 04:17 G	44643216.63	44643216.68	44643216.72	0.1638	0.1556
Mercury	117517-09-27 07:24 G	44643531.70	44643531.81	44643531.93	0.1893	0.0495
Mercury	117527-02-17 15:20 G	44646962.03	44646962.14	44646962.25	0.1900	0.0698

Mercury	117537-08-05 00:41 G	44650783.40	44650783.53	44650783.66	0.1650	0.0995
Mercury	117546-12-26 02:36 G	44654213.44	44654213.61	44654213.77	0.1644	0.0226
Mercury	117547-11-05 23:29 G	44654528.45	44654528.48	44654528.51	0.1885	0.1787
Mercury	117556-05-17 04:46 G	44657643.62	44657643.70	44657643.79	0.1638	0.1385
Venus	117556-07-17 02:36 G	44657704.44	44657704.61	44657704.78	0.1724	0.0194
Mercury	117557-03-28 07:24 G	44657958.70	44657958.81	44657958.92	0.1893	0.0631
Venus	117562-12-28 10:17 G	44660059.80	44660059.93	44660060.06	0.1823	0.1268
Mercury	117566-08-18 15:20 G	44661389.03	44661389.14	44661389.26	0.1900	0.0559
Mercury	117576-01-08 23:15 G	44664819.43	44664819.47	44664819.50	0.1907	0.1780
Mercury	117577-02-03 01:24 G	44665210.45	44665210.56	44665210.67	0.1650	0.1175
Mercury	117586-06-26 03:20 G	44668640.47	44668640.64	44668640.80	0.1644	0.0045
Mercury	117595-11-16 05:15 G	44672070.62	44672070.72	44672070.83	0.1638	0.1222
Mercury	117596-09-26 07:39 G	44672385.71	44672385.82	44672385.92	0.1893	0.0772
Mercury	117606-02-16 15:34 G	44675816.04	44675816.15	44675816.26	0.1900	0.0410
Mercury	117615-07-09 23:15 G	44679246.41	44679246.47	44679246.52	0.1907	0.1643
Moon	117615-12-23 11:00 G	44679412.75	44679412.96	44679413.17	0.1637	0.0041
Earth	117615-12-23 11:15 G	44679412.78	44679412.97	44679413.16	0.1637	0.0196 *
Mercury	117616-08-04 01:53 G	44679637.49	44679637.58	44679637.68	0.1650	0.1350
Venus	117622-05-14 12:56 G	44681746.88	44681747.04	44681747.20	0.1720	0.0536
Mercury	117625-12-25 03:48 G	44683067.50	44683067.66	44683067.83	0.1644	0.0141
Mercury	117635-05-17 06:12 G	44686497.63	44686497.76	44686497.88	0.1639	0.1044
Mercury	117636-03-27 07:39 G	44686812.72	44686812.82	44686812.92	0.1892	0.0903
Mercury	117645-08-17 15:34 G	44690243.03	44690243.15	44690243.26	0.1900	0.0294
Mercury	117655-01-07 23:15 G	44693673.40	44693673.47	44693673.55	0.1907	0.1489
Mercury	117656-02-03 02:36 G	44694064.55	44694064.61	44694064.67	0.1650	0.1530
Venus	117660-10-24 07:39 G	44695789.77	44695789.82	44695789.87	0.1811	0.1732
Mercury	117665-06-25 04:32 G	44697494.53	44697494.69	44697494.85	0.1645	0.0304
Mercury	117674-11-15 06:41 G	44700924.64	44700924.78	44700924.92	0.1639	0.0872
Mercury	117675-09-26 07:39 G	44701239.72	44701239.82	44701239.91	0.1892	0.1036
Mercury	117685-02-15 15:34 G	44704670.03	44704670.15	44704670.27	0.1899	0.0138

Venus	117688-03-10 23:15 G	44705789.32	44705789.47	44705789.62	0.1717	0.0883
Mercury	117694-07-08 23:15 G	44708100.39	44708100.47	44708100.55	0.1906	0.1367
Mercury	117704-12-25 05:15 G	44711921.56	44711921.72	44711921.87	0.1645	0.0487
Mercury	117714-05-17 07:10 G	44715351.66	44715351.80	44715351.95	0.1639	0.0709
Mercury	117715-03-28 07:39 G	44715666.73	44715666.82	44715666.91	0.1892	0.1181
Venus	117720-03-10 22:46 G	44717476.42	44717476.45	44717476.48	0.1730	0.1696
Mercury	117724-08-17 15:34 G	44719097.03	44719097.15	44719097.27	0.1899	0.0034
Venus	117726-08-22 13:39 G	44719831.94	44719832.07	44719832.20	0.1816	0.1173
Mercury	117734-01-07 23:15 G	44722527.39	44722527.47	44722527.56	0.1906	0.1220
Mercury	117744-06-25 05:44 G	44726348.59	44726348.74	44726348.89	0.1645	0.0662
Mercury	117753-11-15 07:53 G	44729778.68	44729778.83	44729778.98	0.1639	0.0531
Venus	117754-01-07 09:34 G	44729831.78	44729831.90	44729832.02	0.1712	0.1223
Mercury	117754-09-26 07:39 G	44730093.74	44730093.82	44730093.90	0.1892	0.1307
Mercury	117764-02-16 15:34 G	44733524.03	44733524.15	44733524.27	0.1899	0.0134
Moon	117767-06-23 03:48 G	44734746.49	44734746.66	44734746.83	0.1898	0.1138
Earth	117767-06-23 07:53 G	44734746.66	44734746.83	44734747.01	0.1899	0.0733 *
Mercury	117773-07-08 23:29 G	44736954.38	44736954.48	44736954.58	0.1906	0.1071
Mercury	117783-12-25 06:12 G	44740775.62	44740775.76	44740775.90	0.1645	0.0827
Venus	117786-01-06 08:36 G	44741518.75	44741518.86	44741518.96	0.1726	0.1322
Venus	117792-06-18 18:41 G	44743874.11	44743874.28	44743874.44	0.1820	0.0575
Mercury	117793-05-16 08:36 G	44744205.70	44744205.86	44744206.02	0.1639	0.0358
Mercury	117794-03-27 07:39 G	44744520.75	44744520.82	44744520.89	0.1891	0.1443
Mercury	117802-10-07 11:00 G	44747635.90	44747635.96	44747636.01	0.1634	0.1515
Mercury	117803-08-18 15:34 G	44747951.04	44747951.15	44747951.27	0.1899	0.0283
Mercury	117813-01-07 23:29 G	44751381.37	44751381.48	44751381.58	0.1906	0.0946
Venus	117819-11-05 19:53 G	44753874.26	44753874.33	44753874.39	0.1709	0.1565
Earth	117820-12-23 05:15 G	44754287.58	44754287.72	44754287.87	0.1646	0.1072
Moon	117820-12-23 11:15 G	44754287.81	44754287.97	44754288.12	0.1645	0.0846 *
Mercury	117823-06-26 07:10 G	44755202.67	44755202.80	44755202.92	0.1645	0.1014
Mercury	117832-11-15 09:05 G	44758632.72	44758632.88	44758633.04	0.1639	0.0195

Mercury	117833-09-26 07:53 G	44758947.76	44758947.83	44758947.89	0.1891	0.1590
Mercury	117842-04-07 11:29 G	44762062.89	44762062.98	44762063.07	0.1634	0.1349
Mercury	117843-02-16 15:48 G	44762378.04	44762378.16	44762378.27	0.1898	0.0417
Venus	117851-11-04 18:55 G	44765561.16	44765561.29	44765561.43	0.1722	0.0979
Mercury	117852-07-08 23:29 G	44765808.37	44765808.48	44765808.58	0.1906	0.0806
Venus	117858-04-16 23:58 G	44767916.32	44767916.50	44767916.68	0.1825	0.0024
Mercury	117862-12-25 07:39 G	44769629.71	44769629.82	44769629.93	0.1645	0.1188
Mercury	117872-05-16 09:48 G	44773059.75	44773059.91	44773060.07	0.1640	0.0020
Mercury	117873-03-27 07:39 G	44773374.78	44773374.82	44773374.87	0.1891	0.1716
Mercury	117881-10-06 11:58 G	44776489.89	44776490.00	44776490.11	0.1634	0.1179
Mercury	117882-08-17 15:34 G	44776805.04	44776805.15	44776805.27	0.1899	0.0545
Mercury	117892-01-07 23:43 G	44780235.38	44780235.49	44780235.60	0.1905	0.0653
Earth	117899-12-26 11:43 G	44783144.83	44783144.99	44783145.16	0.1642	0.0842
Moon	117899-12-26 16:03 G	44783145.01	44783145.17	44783145.32	0.1641	0.1062 *
Mercury	117901-05-31 07:10 G	44783665.80	44783665.80	44783665.80	0.1912	0.1909
Mercury	117902-06-26 08:07 G	44784056.75	44784056.84	44784056.93	0.1646	0.1360
Mercury	117911-11-16 10:17 G	44787486.77	44787486.93	44787487.09	0.1640	0.0162
Mercury	117912-09-26 07:39 G	44787801.80	44787801.82	44787801.84	0.1891	0.1848
Venus	117917-09-02 05:15 G	44789603.56	44789603.72	44789603.88	0.1718	0.0623
Mercury	117921-04-07 12:41 G	44790916.90	44790917.03	44790917.16	0.1634	0.1010
Mercury	117922-02-16 15:48 G	44791232.05	44791232.16	44791232.27	0.1898	0.0689
Venus	117924-02-13 04:46 G	44791958.53	44791958.70	44791958.86	0.1830	0.0653
Mercury	117931-07-09 23:29 G	44794662.37	44794662.48	44794662.59	0.1905	0.0531
Mercury	117940-11-29 07:10 G	44798092.76	44798092.80	44798092.85	0.1912	0.1758
Mercury	117941-12-25 08:51 G	44798483.82	44798483.87	44798483.93	0.1646	0.1544
Mercury	117951-05-17 10:46 G	44801913.79	44801913.95	44801914.11	0.1640	0.0325
Mercury	117960-10-06 13:10 G	44805343.91	44805344.05	44805344.19	0.1635	0.0843
Mercury	117961-08-17 15:48 G	44805659.05	44805659.16	44805659.26	0.1898	0.0822
Mercury	117971-01-07 23:29 G	44809089.37	44809089.48	44809089.60	0.1905	0.0390
Mercury	117980-05-30 07:10 G	44812519.74	44812519.80	44812519.86	0.1912	0.1627

Venus	117983-06-30 15:48 G	44813645.99	44813646.16	44813646.33	0.1714	0.0283
Venus	117989-12-10 09:19 G	44816000.77	44816000.89	44816001.02	0.1835	0.1285
Mercury	117990-11-15 11:29 G	44816340.83	44816340.98	44816341.14	0.1640	0.0507
Mercury	118000-04-06 13:53 G	44819770.93	44819771.08	44819771.23	0.1635	0.0669

119TH MILLENNIUM CE

This is a list of transits visible from Mars in the 119th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	118001-02-15 15:48 G		44820086.06	44820086.16	44820086.26	0.1898	0.0960	
Mercury	118010-07-08 23:43 G		44823516.37	44823516.49	44823516.61	0.1905	0.0239	
Mercury	118019-11-29 07:10 G		44826946.73	44826946.80	44826946.88	0.1912	0.1486	
Mercury	118030-05-16 12:12 G		44830767.86	44830768.01	44830768.16	0.1641	0.0684	
Mercury	118039-10-06 14:22 G		44834197.95	44834198.10	44834198.26	0.1635	0.0501	
Mercury	118040-08-16 15:48 G		44834513.07	44834513.16	44834513.25	0.1898	0.1097	
Venus	118049-04-27 02:07 G		44837688.42	44837688.59	44837688.77	0.1710	0.0072	
Mercury	118050-01-06 23:43 G		44837943.37	44837943.49	44837943.60	0.1905	0.0131	
Moon	118051-06-24 20:36 G		44838477.21	44838477.36	44838477.51	0.1890	0.1337	
Earth	118051-06-24 23:43 G		44838477.36	44838477.49	44838477.61	0.1890	0.1435	*
Mercury	118059-05-30 07:10 G		44841373.72	44841373.80	44841373.89	0.1912	0.1345	
Mercury	118069-11-14 12:41 G		44845194.89	44845195.03	44845195.17	0.1640	0.0847	
Mercury	118079-04-06 15:05 G		44848624.97	44848625.13	44848625.28	0.1635	0.0334	
Mercury	118080-02-15 15:48 G		44848940.07	44848940.16	44848940.25	0.1897	0.1234	
Venus	118087-10-07 07:39 G		44851730.79	44851730.82	44851730.84	0.1823	0.1796	

Mercury	118088-08-26 17:43 G	44852055.17	44852055.24	44852055.30	0.1630	0.1474
Mercury	118089-07-07 23:43 G	44852370.37	44852370.49	44852370.60	0.1905	0.0062
Mercury	118098-11-28 07:24 G	44855800.72	44855800.81	44855800.90	0.1911	0.1201
Earth	118104-12-26 03:48 G	44858019.47	44858019.66	44858019.84	0.1651	0.0482
Moon	118104-12-26 07:53 G	44858019.65	44858019.83	44858020.01	0.1651	0.0325 *
Mercury	118109-05-16 13:24 G	44859621.93	44859622.06	44859622.18	0.1641	0.1030
Venus	118115-02-23 12:41 G	44861730.87	44861731.03	44861731.20	0.1707	0.0403
Mercury	118118-10-06 15:34 G	44863051.99	44863052.15	44863052.31	0.1635	0.0161
Mercury	118119-08-17 15:48 G	44863367.08	44863367.16	44863367.24	0.1897	0.1366
Mercury	118128-02-26 18:12 G	44866482.16	44866482.26	44866482.35	0.1630	0.1313
Mercury	118129-01-06 23:43 G	44866797.38	44866797.49	44866797.61	0.1904	0.0198
Mercury	118138-05-30 07:10 G	44870227.71	44870227.80	44870227.90	0.1911	0.1073
Mercury	118148-11-14 13:53 G	44874048.97	44874049.08	44874049.19	0.1641	0.1206
Venus	118153-08-04 12:55 G	44875772.91	44875773.04	44875773.17	0.1828	0.1204
Mercury	118158-04-06 16:17 G	44877479.01	44877479.18	44877479.34	0.1636	0.0036
Mercury	118159-02-15 15:48 G	44877794.10	44877794.16	44877794.23	0.1897	0.1512
Mercury	118167-08-27 18:55 G	44880909.17	44880909.29	44880909.40	0.1630	0.1137
Mercury	118168-07-07 23:43 G	44881224.37	44881224.49	44881224.60	0.1904	0.0304
Mercury	118177-11-28 07:24 G	44884654.71	44884654.81	44884654.91	0.1911	0.0916
Venus	118180-12-20 23:15 G	44885773.31	44885773.47	44885773.62	0.1703	0.0734
Earth	118183-12-29 10:31 G	44886876.85	44886876.94	44886877.03	0.1647	0.1450
Moon	118183-12-29 16:31 G	44886877.16	44886877.19	44886877.23	0.1647	0.1617
Mercury	118188-05-15 14:22 G	44888476.01	44888476.10	44888476.19	0.1641	0.1371
Mercury	118197-10-05 16:46 G	44891906.04	44891906.20	44891906.36	0.1636	0.0185
Mercury	118198-08-16 15:48 G	44892221.11	44892221.16	44892221.22	0.1897	0.1642
Mercury	118207-02-26 19:24 G	44895336.18	44895336.31	44895336.44	0.1630	0.0971
Mercury	118208-01-07 23:43 G	44895651.38	44895651.49	44895651.61	0.1904	0.0451
Mercury	118217-05-30 07:24 G	44899081.70	44899081.81	44899081.92	0.1911	0.0788
Venus	118219-06-02 17:15 G	44899815.05	44899815.22	44899815.39	0.1833	0.0566
Mercury	118227-11-15 15:05 G	44902903.09	44902903.13	44902903.18	0.1641	0.1559

Mercury	118237-04-06 17:15 G	44906333.07	44906333.22	44906333.38	0.1636	0.0358
Mercury	118238-02-15 15:48 G	44906648.13	44906648.16	44906648.20	0.1897	0.1782
Mercury	118246-08-27 19:53 G	44909763.19	44909763.33	44909763.47	0.1631	0.0813
Venus	118246-10-19 09:48 G	44909815.78	44909815.91	44909816.04	0.1699	0.1067
Mercury	118247-07-08 23:58 G	44910078.38	44910078.50	44910078.61	0.1904	0.0597
Mercury	118256-11-28 07:24 G	44913508.70	44913508.81	44913508.92	0.1910	0.0645
Mercury	118266-04-20 14:51 G	44916939.12	44916939.12	44916939.13	0.1917	0.1912
Mercury	118276-10-05 17:58 G	44920760.10	44920760.25	44920760.40	0.1636	0.0528
Venus	118278-10-18 08:07 G	44921502.75	44921502.84	44921502.93	0.1712	0.1427
Venus	118285-03-29 22:17 G	44923857.26	44923857.43	44923857.61	0.1838	0.0068
Mercury	118286-02-25 20:36 G	44924190.21	44924190.36	44924190.51	0.1631	0.0632
Mercury	118287-01-06 23:43 G	44924505.38	44924505.49	44924505.60	0.1904	0.0721
Mercury	118296-05-29 07:24 G	44927935.70	44927935.81	44927935.93	0.1911	0.0503
Mercury	118305-10-20 14:51 G	44931366.08	44931366.12	44931366.17	0.1917	0.1770
Venus	118312-08-16 20:36 G	44933858.26	44933858.36	44933858.46	0.1696	0.1379
Mercury	118316-04-06 18:27 G	44935187.13	44935187.27	44935187.42	0.1636	0.0704
Mercury	118325-08-27 21:05 G	44938617.22	44938617.38	44938617.53	0.1631	0.0464
Mercury	118326-07-08 23:43 G	44938932.39	44938932.49	44938932.60	0.1903	0.0866
Mercury	118335-01-17 23:58 G	44942047.47	44942047.50	44942047.52	0.1626	0.1596
Mercury	118335-11-29 07:24 G	44942362.70	44942362.81	44942362.93	0.1910	0.0368
Venus	118344-08-15 18:27 G	44945545.13	44945545.27	44945545.40	0.1708	0.1079
Mercury	118345-04-20 14:51 G	44945793.06	44945793.12	44945793.18	0.1917	0.1638
Venus	118351-01-26 02:36 G	44947899.44	44947899.61	44947899.77	0.1842	0.0728
Mercury	118355-10-06 19:10 G	44949614.16	44949614.30	44949614.43	0.1636	0.0875
Mercury	118365-02-25 21:34 G	44953044.24	44953044.40	44953044.56	0.1631	0.0301
Mercury	118366-01-06 23:58 G	44953359.40	44953359.50	44953359.60	0.1903	0.1014
Mercury	118374-07-19 00:27 G	44956474.45	44956474.52	44956474.59	0.1626	0.1431
Mercury	118375-05-30 07:24 G	44956789.70	44956789.81	44956789.93	0.1910	0.0233
Mercury	118384-10-19 15:05 G	44960220.05	44960220.13	44960220.20	0.1917	0.1484
Earth	118388-12-29 01:10 G	44961751.35	44961751.55	44961751.74	0.1657	0.0090

Moon	118388-12-29 07:53 G	44961751.64	44961751.83	44961752.03	0.1656	0.0207 *
Mercury	118395-04-06 19:39 G	44964041.20	44964041.32	44964041.45	0.1637	0.1053
Mercury	118404-08-26 22:17 G	44967471.27	44967471.43	44967471.59	0.1631	0.0126
Mercury	118405-07-07 23:43 G	44967786.40	44967786.49	44967786.59	0.1903	0.1133
Venus	118410-06-13 05:15 G	44969587.56	44969587.72	44969587.87	0.1704	0.0751
Mercury	118414-01-17 00:55 G	44970901.44	44970901.54	44970901.64	0.1626	0.1271
Earth	118414-06-30 18:55 G	44971066.19	44971066.29	44971066.39	0.1888	0.1596
Mercury	118414-11-28 07:39 G	44971216.70	44971216.82	44971216.94	0.1910	0.0072
Venus	118416-11-22 06:41 G	44971941.67	44971941.78	44971941.90	0.1847	0.1402
Mercury	118424-04-19 15:05 G	44974647.05	44974647.13	44974647.21	0.1916	0.1343
Mercury	118434-10-05 20:22 G	44978468.24	44978468.35	44978468.46	0.1637	0.1226
Mercury	118444-02-25 22:46 G	44981898.29	44981898.45	44981898.61	0.1631	0.0048
Mercury	118445-01-05 23:58 G	44982213.41	44982213.50	44982213.58	0.1903	0.1284
Mercury	118453-07-18 01:39 G	44985328.45	44985328.57	44985328.68	0.1626	0.1097
Mercury	118454-05-29 07:39 G	44985643.70	44985643.82	44985643.93	0.1909	0.0079
Mercury	118463-10-19 15:05 G	44989074.04	44989074.13	44989074.22	0.1916	0.1205
Mercury	118474-04-05 20:51 G	44992895.29	44992895.37	44992895.45	0.1637	0.1398
Venus	118476-04-09 16:03 G	44993630.00	44993630.17	44993630.33	0.1701	0.0425
Mercury	118483-08-26 23:15 G	44996325.31	44996325.47	44996325.63	0.1632	0.0210
Mercury	118484-07-06 23:58 G	44996640.42	44996640.50	44996640.58	0.1902	0.1425
Mercury	118493-01-16 02:07 G	44999755.46	44999755.59	44999755.72	0.1627	0.0926
Mercury	118493-11-27 07:39 G	45000070.70	45000070.82	45000070.94	0.1909	0.0200
Mercury	118503-04-20 15:05 G	45003501.04	45003501.13	45003501.23	0.1916	0.1059
Mercury	118513-10-05 21:34 G	45007322.36	45007322.40	45007322.44	0.1637	0.1577
Venus	118514-09-20 05:58 G	45007671.71	45007671.75	45007671.79	0.1836	0.1781
Mercury	118523-02-25 23:58 G	45010752.34	45010752.50	45010752.66	0.1632	0.0395
Mercury	118524-01-06 23:58 G	45011067.43	45011067.50	45011067.56	0.1902	0.1557
Mercury	118532-07-18 02:36 G	45014182.47	45014182.61	45014182.75	0.1627	0.0768
Mercury	118533-05-29 07:39 G	45014497.71	45014497.82	45014497.94	0.1909	0.0348
Venus	118542-02-06 02:36 G	45017672.44	45017672.61	45017672.78	0.1697	0.0087

Mercury	118542-10-19 15:19 G	45017928.03	45017928.14	45017928.24	0.1916	0.0917
Mercury	118562-08-27 00:27 G	45025179.37	45025179.52	45025179.68	0.1632	0.0565
Mercury	118563-07-07 23:58 G	45025494.45	45025494.50	45025494.55	0.1902	0.1699
Mercury	118572-01-17 03:19 G	45028609.49	45028609.64	45028609.79	0.1627	0.0591
Mercury	118572-11-27 07:39 G	45028924.71	45028924.82	45028924.94	0.1909	0.0482
Venus	118580-07-17 11:00 G	45031713.82	45031713.96	45031714.09	0.1840	0.1160
Mercury	118582-04-19 15:05 G	45032355.03	45032355.13	45032355.24	0.1916	0.0780
Moon	118593-12-28 10:46 G	45036625.81	45036625.95	45036626.09	0.1667	0.1207
Earth	118593-12-28 14:51 G	45036626.01	45036626.12	45036626.23	0.1667	0.1359 *
Mercury	118602-02-26 00:55 G	45039606.40	45039606.54	45039606.69	0.1632	0.0732
Mercury	118603-01-06 23:58 G	45039921.48	45039921.50	45039921.53	0.1902	0.1849
Venus	118607-12-05 13:24 G	45041714.89	45041715.06	45041715.23	0.1693	0.0228
Mercury	118611-07-19 03:48 G	45043036.51	45043036.66	45043036.82	0.1627	0.0420
Mercury	118612-05-29 07:39 G	45043351.71	45043351.82	45043351.93	0.1909	0.0618
Mercury	118620-12-08 06:55 G	45046466.74	45046466.79	45046466.83	0.1622	0.1545
Mercury	118621-10-19 15:19 G	45046782.03	45046782.14	45046782.25	0.1915	0.0625
Mercury	118641-08-27 01:39 G	45054033.44	45054033.57	45054033.71	0.1632	0.0913
Venus	118646-05-15 15:05 G	45055755.96	45055756.13	45055756.30	0.1845	0.0496
Mercury	118651-01-17 04:17 G	45057463.52	45057463.68	45057463.84	0.1627	0.0258
Mercury	118651-11-28 07:53 G	45057778.72	45057778.83	45057778.94	0.1909	0.0779
Mercury	118660-06-08 07:24 G	45060893.73	45060893.81	45060893.89	0.1623	0.1378
Mercury	118661-04-19 15:19 G	45061209.03	45061209.14	45061209.26	0.1915	0.0486
Mercury	118670-09-09 22:31 G	45064639.40	45064639.44	45064639.48	0.1922	0.1785
Earth	118672-12-31 22:17 G	45065483.25	45065483.43	45065483.60	0.1662	0.0656
Moon	118673-01-01 01:10 G	45065483.38	45065483.55	45065483.71	0.1662	0.0720 *
Venus	118673-10-02 00:27 G	45065757.35	45065757.52	45065757.68	0.1690	0.0552
Mercury	118681-02-25 02:22 G	45068460.48	45068460.60	45068460.72	0.1632	0.1088
Mercury	118690-07-18 05:00 G	45071890.55	45071890.71	45071890.87	0.1627	0.0078
Mercury	118691-05-29 07:53 G	45072205.72	45072205.83	45072205.93	0.1908	0.0906
Moon	118698-07-02 08:22 G	45074796.69	45074796.85	45074797.02	0.1878	0.0749

Earth	118698-07-02 14:07 G	45074796.93	45074797.09	45074797.25	0.1879	0.1023 *
Mercury	118699-12-08 07:53 G	45075320.73	45075320.83	45075320.94	0.1622	0.1212
Mercury	118700-10-19 15:19 G	45075636.03	45075636.14	45075636.26	0.1915	0.0344
Mercury	118710-03-11 22:46 G	45079066.39	45079066.45	45079066.51	0.1921	0.1624
Venus	118712-03-12 19:53 G	45079798.15	45079798.33	45079798.50	0.1850	0.0165
Mercury	118720-08-27 02:51 G	45082887.52	45082887.62	45082887.72	0.1633	0.1257
Mercury	118730-01-17 05:43 G	45086317.57	45086317.74	45086317.90	0.1628	0.0105
Mercury	118730-11-28 07:53 G	45086632.73	45086632.83	45086632.93	0.1908	0.1050
Mercury	118739-06-09 08:36 G	45089747.74	45089747.86	45089747.98	0.1623	0.1043
Venus	118739-07-31 11:15 G	45089799.83	45089799.97	45089800.12	0.1686	0.0855
Mercury	118740-04-19 15:34 G	45090063.03	45090063.15	45090063.26	0.1915	0.0206
Mercury	118749-09-09 22:46 G	45093493.37	45093493.45	45093493.52	0.1921	0.1499
Mercury	118760-02-26 03:34 G	45097314.58	45097314.65	45097314.72	0.1633	0.1442
Mercury	118769-07-18 05:58 G	45100744.59	45100744.75	45100744.91	0.1628	0.0258
Mercury	118770-05-29 07:53 G	45101059.74	45101059.83	45101059.92	0.1908	0.1200
Venus	118771-07-30 08:22 G	45101486.79	45101486.85	45101486.92	0.1698	0.1564
Venus	118778-01-07 23:29 G	45103840.33	45103840.48	45103840.64	0.1855	0.0854
Mercury	118778-12-08 09:05 G	45104174.75	45104174.88	45104175.01	0.1623	0.0876
Mercury	118779-10-19 15:34 G	45104490.03	45104490.15	45104490.27	0.1914	0.0068
Mercury	118789-03-10 22:46 G	45107920.37	45107920.45	45107920.54	0.1921	0.1341
Mercury	118799-08-27 04:03 G	45111741.65	45111741.67	45111741.69	0.1633	0.1614
Venus	118805-05-27 22:31 G	45113842.31	45113842.44	45113842.56	0.1683	0.1161
Mercury	118809-01-16 06:41 G	45115171.63	45115171.78	45115171.94	0.1628	0.0443
Mercury	118809-11-27 07:53 G	45115486.75	45115486.83	45115486.91	0.1908	0.1334
Mercury	118818-06-08 09:34 G	45118601.76	45118601.90	45118602.05	0.1623	0.0705
Mercury	118819-04-19 15:34 G	45118917.03	45118917.15	45118917.27	0.1915	0.0093
Mercury	118828-09-08 23:00 G	45122347.36	45122347.46	45122347.55	0.1921	0.1190
Venus	118837-05-26 19:39 G	45125529.21	45125529.32	45125529.44	0.1695	0.1253
Venus	118843-11-05 03:34 G	45127882.55	45127882.65	45127882.74	0.1859	0.1556
Mercury	118848-07-17 07:24 G	45129598.66	45129598.81	45129598.96	0.1628	0.0615

Mercury	118849-05-28 07:53 G	45129913.76	45129913.83	45129913.91	0.1908	0.1475
Mercury	118857-12-07 10:17 G	45133028.78	45133028.93	45133029.08	0.1623	0.0534
Mercury	118858-10-18 15:34 G	45133344.04	45133344.15	45133344.27	0.1914	0.0242
Mercury	118868-03-09 22:46 G	45136774.36	45136774.45	45136774.55	0.1921	0.1058
Venus	118871-03-25 10:03 G	45137884.83	45137884.92	45137885.00	0.1680	0.1442
Earth	118877-12-31 10:46 G	45140357.78	45140357.95	45140358.11	0.1673	0.0834
Moon	118877-12-31 17:29 G	45140358.07	45140358.23	45140358.39	0.1673	0.0942 *
Mercury	118888-01-16 07:53 G	45144025.69	45144025.83	45144025.97	0.1628	0.0781
Mercury	118888-11-26 08:07 G	45144340.78	45144340.84	45144340.90	0.1907	0.1635
Mercury	118897-06-07 10:46 G	45147455.80	45147455.95	45147456.11	0.1624	0.0365
Mercury	118898-04-18 15:34 G	45147771.04	45147771.15	45147771.27	0.1914	0.0383
Venus	118903-03-25 06:41 G	45149571.64	45149571.78	45149571.93	0.1691	0.0938
Mercury	118906-10-29 14:07 G	45150886.02	45150886.09	45150886.15	0.1619	0.1474
Mercury	118907-09-09 23:00 G	45151201.35	45151201.46	45151201.56	0.1920	0.0904
Mercury	118927-07-18 08:36 G	45158452.73	45158452.86	45158452.99	0.1628	0.0964
Mercury	118928-05-28 08:07 G	45158767.79	45158767.84	45158767.88	0.1907	0.1758
Mercury	118936-12-07 11:15 G	45161882.81	45161882.97	45161883.13	0.1623	0.0200
Mercury	118937-10-18 15:48 G	45162198.04	45162198.16	45162198.27	0.1914	0.0532
Venus	118941-09-02 04:03 G	45163612.61	45163612.67	45163612.72	0.1848	0.1732
Mercury	118946-04-29 14:36 G	45165313.02	45165313.11	45165313.20	0.1619	0.1313
Mercury	118947-03-10 23:15 G	45165628.36	45165628.47	45165628.57	0.1920	0.0746
Moon	118957-01-03 13:10 G	45169214.91	45169215.05	45169215.19	0.1669	0.1100
Earth	118957-01-03 19:39 G	45169215.20	45169215.32	45169215.45	0.1668	0.1250
Mercury	118967-01-16 09:05 G	45172879.77	45172879.88	45172880.00	0.1629	0.1140
Venus	118969-01-19 17:43 G	45173614.08	45173614.24	45173614.40	0.1688	0.0616
Mercury	118976-06-07 11:58 G	45176309.84	45176310.00	45176310.16	0.1624	0.0027
Mercury	118977-04-18 15:48 G	45176625.05	45176625.16	45176625.27	0.1913	0.0675
Moon	118982-07-04 04:31 G	45178527.50	45178527.69	45178527.89	0.1869	0.0493
Earth	118982-07-04 12:12 G	45178527.82	45178528.01	45178528.19	0.1870	0.0591 *
Mercury	118985-10-28 15:19 G	45179740.02	45179740.14	45179740.25	0.1619	0.1136

Mercury 118986-09-08 23:00 G 45180055.35 45180055.46 45180055.57 0.1920 0.0616

Mercury 118996-01-30 06:27 G 45183485.76 45183485.77 45183485.78 0.1926 0.1912

120TH MILLENNIUM CE

This is a list of transits visible from Mars in the 120th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	119006-07-18 09:34	G	45187306.81	45187306.90	45187307.00	0.1629	0.1307	
Venus	119007-07-01 08:36	G	45187654.72	45187654.86	45187655.00	0.1852	0.1084	
Mercury	119015-12-08 12:41	G	45190736.87	45190737.03	45190737.19	0.1624	0.0158	
Mercury	119016-10-18 15:48	G	45191052.05	45191052.16	45191052.27	0.1913	0.0818	
Mercury	119025-04-29 15:48	G	45194167.03	45194167.16	45194167.29	0.1619	0.0969	
Mercury	119026-03-10 23:15	G	45194482.35	45194482.47	45194482.58	0.1920	0.0458	
Venus	119034-11-18 05:00	G	45197656.54	45197656.71	45197656.88	0.1685	0.0317	
Mercury	119035-08-01 06:27	G	45197912.72	45197912.77	45197912.81	0.1926	0.1778	
Mercury	119046-01-16 10:31	G	45201733.87	45201733.94	45201734.00	0.1629	0.1495	
Mercury	119055-06-08 13:10	G	45205163.89	45205164.05	45205164.21	0.1624	0.0325	
Mercury	119056-04-18 15:48	G	45205479.06	45205479.16	45205479.26	0.1913	0.0967	
Mercury	119064-10-28 16:17	G	45208594.04	45208594.18	45208594.32	0.1619	0.0808	
Mercury	119065-09-08 23:15	G	45208909.36	45208909.47	45208909.59	0.1919	0.0309	
Venus	119073-04-27 12:41	G	45211696.85	45211697.03	45211697.20	0.1857	0.0398	
Mercury	119075-01-30 06:27	G	45212339.71	45212339.77	45212339.83	0.1925	0.1623	
Mercury	119094-12-07 13:39	G	45219590.92	45219591.07	45219591.23	0.1624	0.0501	
Mercury	119095-10-18 15:48	G	45219906.07	45219906.16	45219906.26	0.1913	0.1112	

Venus	119100-09-15 16:03 G	45221699.00	45221699.17	45221699.34	0.1681	0.0016
Mercury	119104-04-29 17:00 G	45223021.06	45223021.21	45223021.35	0.1620	0.0629
Mercury	119105-03-10 23:15 G	45223336.35	45223336.47	45223336.59	0.1919	0.0169
Mercury	119114-08-01 06:41 G	45226766.70	45226766.78	45226766.85	0.1925	0.1465
Mercury	119134-06-08 14:22 G	45234017.95	45234018.10	45234018.25	0.1625	0.0675
Mercury	119135-04-19 16:03 G	45234333.08	45234333.17	45234333.25	0.1913	0.1254
Venus	119139-02-23 17:00 G	45235739.03	45235739.21	45235739.38	0.1862	0.0283
Mercury	119143-10-29 17:29 G	45237448.08	45237448.23	45237448.38	0.1620	0.0459
Mercury	119144-09-08 23:29 G	45237763.36	45237763.48	45237763.59	0.1919	0.0059
Mercury	119153-03-20 21:05 G	45240878.34	45240878.38	45240878.42	0.1615	0.1557
Mercury	119154-01-30 06:41 G	45241193.69	45241193.78	45241193.86	0.1925	0.1324
Moon	119162-01-04 02:36 G	45244089.43	45244089.61	45244089.79	0.1679	0.0313
Earth	119162-01-04 06:55 G	45244089.60	45244089.79	45244089.98	0.1679	0.0303 *
Venus	119166-07-14 03:19 G	45245741.48	45245741.64	45245741.81	0.1678	0.0290
Mercury	119173-12-07 14:51 G	45248444.98	45248445.12	45248445.26	0.1624	0.0845
Mercury	119174-10-18 16:03 G	45248760.09	45248760.17	45248760.25	0.1913	0.1404
Mercury	119183-04-29 17:58 G	45251875.09	45251875.25	45251875.41	0.1620	0.0294
Mercury	119184-03-09 23:29 G	45252190.37	45252190.48	45252190.60	0.1919	0.0150
Mercury	119192-09-18 21:34 G	45255305.32	45255305.40	45255305.48	0.1616	0.1391
Mercury	119193-07-31 06:41 G	45255620.69	45255620.78	45255620.87	0.1925	0.1179
Venus	119204-12-20 20:36 G	45259781.21	45259781.36	45259781.51	0.1866	0.1005
Mercury	119213-06-07 15:34 G	45262872.03	45262872.15	45262872.28	0.1625	0.1027
Mercury	119214-04-18 16:03 G	45263187.11	45263187.17	45263187.24	0.1912	0.1549
Mercury	119222-10-28 18:41 G	45266302.12	45266302.28	45266302.44	0.1620	0.0116
Mercury	119223-09-08 23:29 G	45266617.36	45266617.48	45266617.60	0.1919	0.0273
Mercury	119232-03-19 21:48 G	45269732.31	45269732.41	45269732.52	0.1616	0.1233
Venus	119232-05-10 14:51 G	45269783.96	45269784.12	45269784.28	0.1675	0.0587
Mercury	119233-01-29 06:55 G	45270047.69	45270047.79	45270047.89	0.1925	0.1011
Mercury	119252-12-06 16:03 G	45277299.07	45277299.17	45277299.28	0.1625	0.1202
Mercury	119253-10-17 16:03 G	45277614.12	45277614.17	45277614.22	0.1912	0.1689

Mercury	119262-04-28 19:10 G	45280729.14	45280729.30	45280729.46	0.1620	0.0058
Mercury	119263-03-09 23:43 G	45281044.37	45281044.49	45281044.60	0.1918	0.0437
Earth	119266-07-06 11:29 G	45282258.79	45282258.98	45282259.17	0.1860	0.0250
Moon	119266-07-06 18:27 G	45282259.09	45282259.27	45282259.45	0.1861	0.0152 *
Venus	119270-10-17 23:58 G	45283823.44	45283823.50	45283823.56	0.1871	0.1740
Mercury	119271-09-18 22:31 G	45284159.33	45284159.44	45284159.56	0.1616	0.1056
Mercury	119272-07-30 06:55 G	45284474.68	45284474.79	45284474.89	0.1924	0.0882
Mercury	119292-06-06 16:31 G	45291726.11	45291726.19	45291726.28	0.1625	0.1372
Mercury	119293-04-17 16:17 G	45292041.15	45292041.18	45292041.20	0.1912	0.1843
Venus	119298-03-08 02:36 G	45293826.46	45293826.61	45293826.75	0.1672	0.0863
Mercury	119301-10-28 19:39 G	45295156.17	45295156.32	45295156.48	0.1621	0.0227
Mercury	119302-09-08 23:43 G	45295471.38	45295471.49	45295471.60	0.1918	0.0581
Mercury	119311-03-20 23:15 G	45298586.34	45298586.47	45298586.60	0.1616	0.0885
Mercury	119312-01-30 06:55 G	45298901.68	45298901.79	45298901.90	0.1924	0.0723
Venus	119330-03-07 22:31 G	45305513.36	45305513.44	45305513.52	0.1683	0.1482
Mercury	119331-12-07 17:15 G	45306153.18	45306153.22	45306153.27	0.1625	0.1553
Mercury	119341-04-28 20:22 G	45309583.20	45309583.35	45309583.51	0.1621	0.0403
Mercury	119342-03-09 23:43 G	45309898.38	45309898.49	45309898.60	0.1918	0.0721
Mercury	119350-09-18 23:43 G	45313013.34	45313013.49	45313013.63	0.1616	0.0727
Mercury	119351-07-31 07:10 G	45313328.68	45313328.80	45313328.91	0.1924	0.0567
Mercury	119360-12-20 14:07 G	45316759.08	45316759.09	45316759.10	0.1930	0.1907
Venus	119364-01-04 13:39 G	45317868.95	45317869.07	45317869.20	0.1668	0.1154
Venus	119368-08-15 01:24 G	45319553.48	45319553.56	45319553.64	0.1860	0.1643
Mercury	119380-10-27 21:05 G	45324010.23	45324010.38	45324010.53	0.1621	0.0575
Mercury	119381-09-07 23:43 G	45324325.39	45324325.49	45324325.60	0.1918	0.0876
Mercury	119390-03-20 00:12 G	45327440.36	45327440.51	45327440.66	0.1616	0.0550
Mercury	119391-01-29 07:10 G	45327755.68	45327755.80	45327755.91	0.1924	0.0432
Venus	119396-01-03 09:48 G	45329555.78	45329555.91	45329556.03	0.1680	0.1173
Mercury	119400-06-21 14:07 G	45331186.04	45331186.09	45331186.14	0.1930	0.1761
Mercury	119420-04-28 21:34 G	45338437.25	45338437.40	45338437.54	0.1621	0.0742

Mercury	119421-03-09 23:58 G	45338752.40	45338752.50	45338752.60	0.1917	0.1026
Mercury	119429-09-19 00:55 G	45341867.38	45341867.54	45341867.69	0.1617	0.0380
Venus	119429-11-02 01:39 G	45341911.49	45341911.57	45341911.66	0.1665	0.1422
Mercury	119430-07-31 07:10 G	45342182.68	45342182.80	45342182.92	0.1924	0.0282
Venus	119434-06-13 05:29 G	45343595.58	45343595.73	45343595.88	0.1864	0.0963
Mercury	119439-02-09 04:31 G	45345297.62	45345297.69	45345297.75	0.1612	0.1474
Mercury	119439-12-21 14:22 G	45345613.03	45345613.10	45345613.16	0.1929	0.1599
Earth	119446-01-07 01:53 G	45347821.39	45347821.58	45347821.78	0.1685	0.0219
Moon	119446-01-07 07:53 G	45347821.64	45347821.83	45347822.02	0.1685	0.0546 *
Mercury	119459-10-28 22:03 G	45352864.29	45352864.42	45352864.56	0.1621	0.0921
Mercury	119460-09-07 23:43 G	45353179.40	45353179.49	45353179.59	0.1918	0.1162
Venus	119461-10-31 21:19 G	45353598.24	45353598.39	45353598.53	0.1676	0.0879
Mercury	119469-03-20 01:24 G	45356294.40	45356294.56	45356294.71	0.1617	0.0221
Mercury	119470-01-29 07:24 G	45356609.69	45356609.81	45356609.93	0.1924	0.0118
Mercury	119478-08-10 05:00 G	45359724.62	45359724.71	45359724.80	0.1613	0.1308
Mercury	119479-06-21 14:22 G	45360040.02	45360040.10	45360040.17	0.1929	0.1459
Mercury	119499-04-28 22:46 G	45367291.33	45367291.45	45367291.57	0.1621	0.1094
Mercury	119500-03-09 23:58 G	45367606.42	45367606.50	45367606.59	0.1917	0.1320
Venus	119500-04-10 09:19 G	45367637.71	45367637.89	45367638.07	0.1869	0.0242
Mercury	119508-09-19 01:53 G	45370721.42	45370721.58	45370721.74	0.1617	0.0060
Mercury	119509-07-31 07:10 G	45371036.68	45371036.80	45371036.92	0.1923	0.0049
Mercury	119518-02-09 05:29 G	45374151.62	45374151.73	45374151.84	0.1613	0.1143
Mercury	119518-12-21 14:22 G	45374467.01	45374467.10	45374467.19	0.1929	0.1301
Venus	119527-08-30 08:22 G	45377640.69	45377640.85	45377641.01	0.1673	0.0572
Mercury	119538-10-28 23:14 G	45381718.37	45381718.47	45381718.57	0.1622	0.1266
Mercury	119539-09-08 23:58 G	45382033.43	45382033.50	45382033.58	0.1917	0.1465
Mercury	119548-03-20 02:36 G	45385148.45	45385148.61	45385148.77	0.1617	0.0136
Mercury	119549-01-29 07:24 G	45385463.69	45385463.81	45385463.93	0.1923	0.0179
Moon	119550-07-09 07:24 G	45385989.61	45385989.81	45385990.01	0.1851	0.0372
Earth	119550-07-09 13:10 G	45385989.86	45385990.05	45385990.24	0.1851	0.0036 *

Mercury	119557-08-10 05:58 G	45388578.63	45388578.75	45388578.88	0.1613	0.0976
Mercury	119558-06-21 14:22 G	45388894.01	45388894.10	45388894.20	0.1929	0.1156
Venus	119566-02-05 13:10 G	45391679.87	45391680.05	45391680.22	0.1873	0.0477
Mercury	119578-04-28 23:58 G	45396145.43	45396145.50	45396145.57	0.1622	0.1446
Mercury	119579-03-09 23:58 G	45396460.44	45396460.50	45396460.57	0.1917	0.1607
Mercury	119587-09-19 02:50 G	45399575.47	45399575.62	45399575.78	0.1617	0.0295
Mercury	119588-07-30 07:24 G	45399890.70	45399890.81	45399890.93	0.1923	0.0333
Venus	119593-06-26 19:53 G	45401683.17	45401683.33	45401683.50	0.1670	0.0289
Mercury	119597-02-08 06:41 G	45403005.64	45403005.78	45403005.91	0.1613	0.0808
Mercury	119597-12-20 14:36 G	45403321.01	45403321.11	45403321.21	0.1928	0.1003
Mercury	119617-10-28 00:26 G	45410572.51	45410572.52	45410572.53	0.1622	0.1617
Mercury	119618-09-08 00:12 G	45410887.46	45410887.51	45410887.55	0.1917	0.1756
Mercury	119627-03-20 03:34 G	45414002.50	45414002.65	45414002.81	0.1617	0.0477
Mercury	119628-01-29 07:24 G	45414317.70	45414317.81	45414317.93	0.1923	0.0465
Venus	119631-12-03 16:02 G	45415722.04	45415722.17	45415722.30	0.1878	0.1245
Mercury	119636-08-09 06:55 G	45417432.65	45417432.79	45417432.94	0.1613	0.0644
Mercury	119637-06-20 14:36 G	45417748.00	45417748.11	45417748.22	0.1929	0.0852
Earth	119651-01-06 07:24 G	45422695.75	45422695.81	45422695.88	0.1698	0.1593
Moon	119651-01-06 11:43 G	45422695.85	45422695.99	45422696.13	0.1698	0.1253 *
Mercury	119658-03-09 00:12 G	45425314.50	45425314.51	45425314.52	0.1916	0.1904
Venus	119659-04-24 07:24 G	45425725.64	45425725.81	45425725.98	0.1667	0.0007
Mercury	119666-09-18 04:02 G	45428429.53	45428429.67	45428429.82	0.1618	0.0648
Mercury	119667-07-30 07:24 G	45428744.70	45428744.81	45428744.92	0.1923	0.0615
Mercury	119676-02-08 07:38 G	45431859.67	45431859.82	45431859.97	0.1613	0.0470
Mercury	119676-12-19 14:50 G	45432175.00	45432175.12	45432175.23	0.1928	0.0699
Mercury	119685-06-30 11:29 G	45435289.94	45435289.98	45435290.01	0.1609	0.1554
Mercury	119706-03-20 04:31 G	45442856.56	45442856.69	45442856.83	0.1618	0.0812
Mercury	119707-01-29 07:38 G	45443171.71	45443171.82	45443171.93	0.1922	0.0782
Mercury	119715-08-10 08:07 G	45446286.69	45446286.84	45446287.00	0.1614	0.0305
Mercury	119716-06-20 14:36 G	45446602.00	45446602.11	45446602.23	0.1928	0.0560

Mercury	119724-12-30 11:58 G	45449716.92	45449717.00	45449717.08	0.1609	0.1391
Venus	119725-02-19 19:10 G	45449768.13	45449768.30	45449768.47	0.1664	0.0284
Mercury	119725-11-10 21:34 G	45450032.39	45450032.40	45450032.42	0.1934	0.1912
Moon	119730-01-09 11:14 G	45451552.80	45451552.97	45451553.15	0.1693	0.0726
Earth	119730-01-09 18:55 G	45451553.12	45451553.29	45451553.47	0.1692	0.0675 *
Mercury	119745-09-18 05:14 G	45457283.60	45457283.72	45457283.85	0.1618	0.0991
Mercury	119746-07-30 07:24 G	45457598.71	45457598.81	45457598.92	0.1922	0.0906
Mercury	119755-02-08 08:36 G	45460713.70	45460713.86	45460714.02	0.1613	0.0139
Mercury	119755-12-20 14:50 G	45461029.00	45461029.12	45461029.24	0.1928	0.0396
Mercury	119764-06-30 12:26 G	45464143.92	45464144.02	45464144.12	0.1610	0.1232
Mercury	119765-05-11 21:48 G	45464459.36	45464459.41	45464459.46	0.1933	0.1756
Mercury	119785-03-19 05:43 G	45471710.63	45471710.74	45471710.85	0.1618	0.1163
Mercury	119786-01-28 07:38 G	45472025.72	45472025.82	45472025.92	0.1922	0.1062
Venus	119790-12-18 06:26 G	45473810.61	45473810.77	45473810.93	0.1661	0.0572
Mercury	119794-08-09 09:19 G	45475140.73	45475140.89	45475141.05	0.1614	0.0045
Mercury	119795-06-20 14:50 G	45475456.00	45475456.12	45475456.24	0.1928	0.0253
Venus	119795-07-28 21:05 G	45475494.27	45475494.38	45475494.49	0.1871	0.1453
Mercury	119803-12-31 12:55 G	45478570.92	45478571.04	45478571.16	0.1610	0.1058
Mercury	119804-11-10 21:48 G	45478886.34	45478886.41	45478886.47	0.1933	0.1617
Mercury	119824-09-18 06:12 G	45486137.67	45486137.76	45486137.85	0.1618	0.1325
Mercury	119825-07-30 07:38 G	45486452.73	45486452.82	45486452.92	0.1922	0.1220
Mercury	119834-02-08 09:48 G	45489567.75	45489567.91	45489568.07	0.1614	0.0205
Earth	119834-07-11 14:50 G	45489720.93	45489721.12	45489721.31	0.1842	0.0258
Moon	119834-07-11 21:34 G	45489721.22	45489721.40	45489721.58	0.1842	0.0152 *
Mercury	119834-12-20 14:50 G	45489883.00	45489883.12	45489883.24	0.1927	0.0114
Mercury	119843-07-01 13:24 G	45492997.93	45492998.06	45492998.19	0.1610	0.0895
Mercury	119844-05-11 21:48 G	45493313.33	45493313.41	45493313.49	0.1933	0.1459
Venus	119856-10-15 18:26 G	45497853.13	45497853.27	45497853.42	0.1658	0.0840
Venus	119861-05-26 00:41 G	45499536.37	45499536.53	45499536.70	0.1876	0.0735
Mercury	119864-03-19 06:55 G	45500564.74	45500564.79	45500564.84	0.1618	0.1510

Mercury	119865-01-28 07:38 G	45500879.74	45500879.82	45500879.90	0.1922	0.1352
Mercury	119873-08-09 10:17 G	45503994.77	45503994.93	45503995.08	0.1614	0.0369
Mercury	119874-06-20 15:05 G	45504310.01	45504310.13	45504310.24	0.1928	0.0090
Mercury	119882-12-30 13:53 G	45507424.94	45507425.08	45507425.22	0.1610	0.0736
Mercury	119883-11-10 22:02 G	45507740.33	45507740.42	45507740.51	0.1933	0.1300
Venus	119888-10-14 13:24 G	45509539.98	45509540.06	45509540.15	0.1668	0.1429
Mercury	119904-07-30 07:38 G	45515306.75	45515306.82	45515306.90	0.1922	0.1503
Mercury	119913-02-08 10:46 G	45518421.80	45518421.95	45518422.10	0.1614	0.0544
Mercury	119913-12-20 15:05 G	45518737.01	45518737.13	45518737.25	0.1927	0.0202
Mercury	119922-07-01 14:22 G	45521851.96	45521852.10	45521852.25	0.1610	0.0564
Venus	119922-08-14 05:58 G	45521895.63	45521895.75	45521895.88	0.1655	0.1118
Mercury	119923-05-12 21:48 G	45522167.32	45522167.41	45522167.51	0.1933	0.1168
Venus	119927-03-24 04:02 G	45523578.49	45523578.67	45523578.85	0.1880	0.0025
Earth	119935-01-09 23:00 G	45526427.32	45526427.46	45526427.60	0.1705	0.1201
Moon	119935-01-10 03:34 G	45526427.54	45526427.65	45526427.76	0.1705	0.1347 *
Mercury	119944-01-29 07:53 G	45529733.77	45529733.83	45529733.89	0.1921	0.1665
Mercury	119952-08-09 11:14 G	45532848.83	45532848.97	45532849.12	0.1614	0.0714
Mercury	119953-06-20 15:05 G	45533164.01	45533164.13	45533164.24	0.1927	0.0341
Venus	119954-08-13 00:41 G	45533582.40	45533582.53	45533582.65	0.1665	0.1126
Mercury	119961-12-30 15:05 G	45536278.97	45536279.13	45536279.28	0.1610	0.0399
Mercury	119962-11-10 22:02 G	45536594.32	45536594.42	45536594.52	0.1933	0.1000
Mercury	119971-05-22 18:55 G	45539709.23	45539709.29	45539709.35	0.1607	0.1470
Mercury	119983-07-30 07:38 G	45544160.78	45544160.82	45544160.86	0.1921	0.1788
Venus	119988-06-10 17:58 G	45545938.16	45545938.25	45545938.34	0.1652	0.1387
Mercury	119992-02-08 11:43 G	45547275.86	45547275.99	45547276.13	0.1614	0.0881
Mercury	119992-12-19 15:05 G	45547591.02	45547591.13	45547591.25	0.1927	0.0507
Venus	119993-01-18 07:10 G	45547620.64	45547620.80	45547620.96	0.1885	0.0784

121ST MILLENNIUM CE

This is a list of transits visible from Mars in the 121st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	120001-06-30 15:19	G	45550705.99	45550706.14	45550706.30	0.1611	0.0238	
Mercury	120002-05-11 22:02	G	45551021.32	45551021.42	45551021.53	0.1932	0.0851	
Mercury	120010-11-20 19:24	G	45554136.22	45554136.31	45554136.40	0.1607	0.1307	
Moon	120014-01-12 04:31	G	45555284.52	45555284.69	45555284.86	0.1700	0.0926	
Earth	120014-01-12 10:31	G	45555284.79	45555284.94	45555285.08	0.1699	0.1095	*
Venus	120020-06-09 12:26	G	45557624.87	45557625.02	45557625.17	0.1662	0.0845	
Mercury	120031-08-09 12:26	G	45561702.90	45561703.02	45561703.14	0.1615	0.1056	
Mercury	120032-06-19 15:05	G	45562018.02	45562018.13	45562018.24	0.1926	0.0645	
Mercury	120040-12-29 16:02	G	45565133.01	45565133.17	45565133.33	0.1610	0.0063	
Mercury	120041-11-09 22:02	G	45565448.31	45565448.42	45565448.53	0.1932	0.0709	
Mercury	120050-05-21 19:38	G	45568563.22	45568563.32	45568563.43	0.1607	0.1154	
Venus	120054-04-08 05:58	G	45569980.75	45569980.75	45569980.76	0.1649	0.1648	
Venus	120058-11-15 09:34	G	45571662.81	45571662.90	45571663.00	0.1889	0.1600	
Mercury	120071-02-07 12:55	G	45576129.94	45576130.04	45576130.14	0.1615	0.1229	
Mercury	120071-12-19 15:19	G	45576445.03	45576445.14	45576445.24	0.1926	0.0796	
Mercury	120080-06-29 16:31	G	45579560.03	45579560.19	45579560.35	0.1611	0.0106	
Mercury	120081-05-10 22:17	G	45579875.31	45579875.43	45579875.54	0.1932	0.0553	
Venus	120086-04-06 23:58	G	45581667.34	45581667.50	45581667.66	0.1659	0.0558	
Mercury	120089-11-19 20:22	G	45582990.23	45582990.35	45582990.48	0.1607	0.0979	
Mercury	120110-08-09 13:24	G	45590556.98	45590557.06	45590557.14	0.1615	0.1392	
Mercury	120111-06-20 15:19	G	45590872.04	45590872.14	45590872.24	0.1927	0.0946	
Earth	120118-07-13 16:46	G	45593452.02	45593452.20	45593452.38	0.1832	0.0475	

Moon	120118-07-13 23:29 G	45593452.30	45593452.48	45593452.65	0.1833	0.0547 *
Mercury	120119-12-30 17:00 G	45593987.05	45593987.21	45593987.36	0.1611	0.0269
Mercury	120120-11-09 22:17 G	45594302.31	45594302.43	45594302.55	0.1932	0.0395
Mercury	120129-05-21 20:50 G	45597417.24	45597417.37	45597417.51	0.1607	0.0814
Mercury	120130-04-02 05:00 G	45597732.67	45597732.71	45597732.75	0.1937	0.1790
Mercury	120150-02-07 14:07 G	45604984.05	45604984.09	45604984.12	0.1615	0.1571
Mercury	120150-12-19 15:19 G	45605299.04	45605299.14	45605299.24	0.1926	0.1093
Venus	120152-02-03 11:43 G	45605709.82	45605709.99	45605710.16	0.1656	0.0280
Mercury	120159-06-30 17:29 G	45608414.08	45608414.23	45608414.38	0.1611	0.0444
Mercury	120160-05-10 22:17 G	45608729.31	45608729.43	45608729.55	0.1932	0.0258
Mercury	120168-11-19 21:19 G	45611844.25	45611844.39	45611844.53	0.1607	0.0656
Mercury	120169-10-01 05:14 G	45612159.65	45612159.72	45612159.78	0.1937	0.1625
Mercury	120190-06-19 15:19 G	45619726.05	45619726.14	45619726.23	0.1926	0.1234
Mercury	120198-12-29 17:58 G	45622841.11	45622841.25	45622841.40	0.1611	0.0614
Mercury	120199-11-09 22:31 G	45623156.32	45623156.44	45623156.55	0.1931	0.0118
Mercury	120208-05-21 21:48 G	45626271.26	45626271.41	45626271.57	0.1607	0.0485
Mercury	120209-04-02 05:00 G	45626586.64	45626586.71	45626586.79	0.1936	0.1488
Mercury	120217-10-12 01:53 G	45629701.55	45629701.58	45629701.62	0.1604	0.1553
Venus	120217-12-01 23:14 G	45629752.30	45629752.47	45629752.65	0.1653	0.0031
Earth	120219-01-12 12:26 G	45630158.86	45630159.02	45630159.19	0.1712	0.0881
Moon	120219-01-12 15:19 G	45630158.97	45630159.14	45630159.30	0.1712	0.0663 *
Venus	120222-07-11 15:05 G	45631434.99	45631435.13	45631435.26	0.1883	0.1152
Mercury	120229-12-19 15:34 G	45634153.07	45634153.15	45634153.23	0.1926	0.1403
Mercury	120238-06-30 18:26 G	45637268.13	45637268.27	45637268.41	0.1611	0.0779
Mercury	120239-05-11 22:31 G	45637583.32	45637583.44	45637583.56	0.1931	0.0081
Mercury	120247-11-20 22:17 G	45640698.28	45640698.43	45640698.59	0.1607	0.0320
Mercury	120248-10-01 05:14 G	45641013.63	45641013.72	45641013.80	0.1936	0.1334
Mercury	120257-04-12 02:36 G	45644128.53	45644128.61	45644128.68	0.1604	0.1386
Mercury	120269-06-19 15:19 G	45648580.07	45648580.14	45648580.21	0.1925	0.1536
Mercury	120277-12-29 18:55 G	45651695.17	45651695.29	45651695.42	0.1611	0.0953

Mercury	120278-11-09 22:31 G	45652010.32	45652010.44	45652010.55	0.1931	0.0213
Venus	120283-09-29 11:29 G	45653794.81	45653794.98	45653795.15	0.1651	0.0260
Mercury	120287-05-21 22:46 G	45655125.29	45655125.45	45655125.61	0.1608	0.0159
Mercury	120288-04-01 05:14 G	45655440.63	45655440.72	45655440.82	0.1936	0.1164
Venus	120288-05-07 18:41 G	45655477.10	45655477.28	45655477.45	0.1887	0.0406
Mercury	120296-10-11 03:05 G	45658555.53	45658555.63	45658555.73	0.1604	0.1223
Moon	120298-01-14 23:00 G	45659016.32	45659016.46	45659016.59	0.1707	0.1289
Earth	120298-01-15 01:10 G	45659016.46	45659016.55	45659016.64	0.1706	0.1495 *
Mercury	120308-12-19 15:34 G	45663007.09	45663007.15	45663007.20	0.1925	0.1688
Mercury	120317-06-30 19:38 G	45666122.21	45666122.32	45666122.43	0.1612	0.1124
Mercury	120318-05-11 22:31 G	45666437.32	45666437.44	45666437.56	0.1931	0.0360
Mercury	120326-11-20 23:29 G	45669552.32	45669552.48	45669552.64	0.1608	0.0023
Mercury	120327-10-02 05:14 G	45669867.62	45669867.72	45669867.82	0.1936	0.1027
Mercury	120336-04-12 03:19 G	45672982.53	45672982.64	45672982.76	0.1604	0.1063
Mercury	120348-06-19 15:34 G	45677434.12	45677434.15	45677434.18	0.1925	0.1844
Venus	120349-07-27 23:14 G	45677837.30	45677837.47	45677837.63	0.1648	0.0535
Venus	120354-03-05 21:19 G	45679519.22	45679519.39	45679519.56	0.1891	0.0387
Mercury	120356-12-29 20:07 G	45680549.24	45680549.34	45680549.43	0.1612	0.1292
Mercury	120357-11-09 22:31 G	45680864.33	45680864.44	45680864.56	0.1931	0.0518
Mercury	120366-05-21 23:58 G	45683979.34	45683979.50	45683979.66	0.1608	0.0188
Mercury	120367-04-02 05:29 G	45684294.62	45684294.73	45684294.83	0.1936	0.0867
Mercury	120375-10-12 04:02 G	45687409.54	45687409.67	45687409.80	0.1604	0.0895
Mercury	120396-06-29 20:36 G	45694976.30	45694976.36	45694976.43	0.1612	0.1469
Mercury	120397-05-10 22:31 G	45695291.33	45695291.44	45695291.55	0.1931	0.0660
Moon	120402-07-15 16:31 G	45697183.02	45697183.19	45697183.37	0.1823	0.0475
Earth	120402-07-15 21:19 G	45697183.21	45697183.39	45697183.57	0.1823	0.0604 *
Mercury	120405-11-20 00:26 G	45698406.36	45698406.52	45698406.67	0.1608	0.0350
Mercury	120406-10-01 05:29 G	45698721.62	45698721.73	45698721.84	0.1936	0.0704
Mercury	120415-04-12 04:31 G	45701836.55	45701836.69	45701836.83	0.1605	0.0730
Venus	120415-05-25 11:14 G	45701879.82	45701879.97	45701880.13	0.1645	0.0797

Venus	120420-01-01 00:12 G	45703561.38	45703561.51	45703561.65	0.1895	0.1175
Mercury	120436-11-08 22:46 G	45709718.34	45709718.45	45709718.56	0.1930	0.0819
Mercury	120445-05-21 00:55 G	45712833.39	45712833.54	45712833.69	0.1608	0.0526
Mercury	120446-04-01 05:29 G	45713148.62	45713148.73	45713148.85	0.1935	0.0564
Venus	120447-05-24 05:14 G	45713566.63	45713566.72	45713566.81	0.1655	0.1411
Mercury	120454-10-11 05:00 G	45716263.56	45716263.71	45716263.85	0.1604	0.0568
Mercury	120476-05-09 22:46 G	45724145.35	45724145.45	45724145.55	0.1930	0.0966
Venus	120481-03-21 23:29 G	45725922.35	45725922.48	45725922.61	0.1643	0.1052
Mercury	120484-11-19 01:24 G	45727260.42	45727260.56	45727260.71	0.1608	0.0698
Mercury	120485-09-30 05:29 G	45727575.62	45727575.73	45727575.85	0.1935	0.0411
Mercury	120494-04-11 05:29 G	45730690.58	45730690.73	45730690.88	0.1605	0.0394
Mercury	120495-02-20 12:26 G	45731005.97	45731006.02	45731006.06	0.1940	0.1803
Moon	120503-01-14 23:14 G	45733890.28	45733890.47	45733890.66	0.1720	0.0741
Earth	120503-01-15 01:24 G	45733890.38	45733890.56	45733890.75	0.1720	0.0570 *
Mercury	120503-09-02 09:48 G	45734120.84	45734120.91	45734120.97	0.1601	0.1458
Venus	120513-03-21 17:00 G	45737609.09	45737609.21	45737609.33	0.1652	0.1129
Mercury	120515-11-09 22:46 G	45738572.35	45738572.45	45738572.55	0.1930	0.1118
Mercury	120524-05-21 01:53 G	45741687.45	45741687.58	45741687.72	0.1608	0.0860
Mercury	120525-04-01 05:58 G	45742002.63	45742002.75	45742002.86	0.1935	0.0245
Mercury	120533-10-11 05:58 G	45745117.59	45745117.75	45745117.91	0.1605	0.0229
Mercury	120534-08-22 12:26 G	45745432.95	45745433.02	45745433.08	0.1940	0.1656
Mercury	120543-03-03 10:17 G	45748547.84	45748547.93	45748548.02	0.1602	0.1294
Venus	120547-01-18 11:14 G	45749964.87	45749964.97	45749965.07	0.1640	0.1323
Mercury	120555-05-10 23:00 G	45752999.37	45752999.46	45752999.54	0.1930	0.1277
Mercury	120563-11-20 02:36 G	45756114.49	45756114.61	45756114.73	0.1608	0.1040
Mercury	120564-09-30 05:43 G	45756429.62	45756429.74	45756429.86	0.1935	0.0100
Mercury	120573-04-11 06:26 G	45759544.61	45759544.77	45759544.93	0.1605	0.0068
Mercury	120574-02-20 12:26 G	45759859.95	45759860.02	45759860.10	0.1940	0.1485
Venus	120579-01-17 05:00 G	45761651.56	45761651.71	45761651.85	0.1649	0.0863
Moon	120582-01-17 10:46 G	45762747.88	45762747.95	45762748.02	0.1714	0.1584

Mercury	120582-09-01 10:46 G	45762974.84	45762974.95	45762975.06	0.1602	0.1134
Venus	120583-08-26 05:43 G	45763333.65	45763333.74	45763333.84	0.1889	0.1600
Mercury	120594-11-08 23:00 G	45767426.38	45767426.46	45767426.54	0.1929	0.1427
Mercury	120603-05-22 03:05 G	45770541.53	45770541.63	45770541.73	0.1609	0.1209
Mercury	120604-04-01 05:58 G	45770856.63	45770856.75	45770856.87	0.1935	0.0089
Mercury	120612-10-11 06:55 G	45773971.64	45773971.79	45773971.95	0.1605	0.0117
Venus	120612-11-15 23:43 G	45774007.44	45774007.49	45774007.54	0.1638	0.1566
Mercury	120613-08-22 12:26 G	45774286.94	45774287.02	45774287.11	0.1939	0.1338
Mercury	120622-03-03 11:14 G	45777401.84	45777401.97	45777402.09	0.1602	0.0961
Mercury	120634-05-10 23:00 G	45781853.39	45781853.46	45781853.53	0.1930	0.1577
Mercury	120642-11-20 03:34 G	45784968.57	45784968.65	45784968.73	0.1609	0.1375
Mercury	120643-10-01 05:58 G	45785283.63	45785283.75	45785283.87	0.1935	0.0235
Venus	120644-11-14 17:00 G	45785694.05	45785694.21	45785694.37	0.1646	0.0595
Venus	120649-06-23 08:22 G	45787375.69	45787375.85	45787376.01	0.1893	0.0804
Mercury	120652-04-11 07:38 G	45788398.66	45788398.82	45788398.97	0.1605	0.0282
Mercury	120653-02-20 12:41 G	45788713.93	45788714.03	45788714.12	0.1939	0.1176
Mercury	120661-09-01 11:43 G	45791828.85	45791828.99	45791829.13	0.1602	0.0797
Mercury	120673-11-08 23:00 G	45796280.42	45796280.46	45796280.51	0.1929	0.1736
Mercury	120682-05-21 04:02 G	45799395.64	45799395.67	45799395.71	0.1609	0.1558
Mercury	120683-04-01 05:58 G	45799710.63	45799710.75	45799710.87	0.1934	0.0371
Earth	120686-07-18 04:31 G	45800914.51	45800914.69	45800914.86	0.1814	0.0623
Moon	120686-07-18 11:14 G	45800914.79	45800914.97	45800915.15	0.1815	0.0215 *
Mercury	120691-10-11 07:53 G	45802825.68	45802825.83	45802825.99	0.1605	0.0445
Mercury	120692-08-21 12:41 G	45803140.93	45803141.03	45803141.14	0.1939	0.1013
Mercury	120701-03-03 12:12 G	45806255.86	45806256.01	45806256.15	0.1602	0.0635
Venus	120710-09-13 05:14 G	45809736.55	45809736.72	45809736.89	0.1644	0.0340
Mercury	120713-05-10 23:14 G	45810707.44	45810707.47	45810707.49	0.1929	0.1885
Venus	120715-04-21 11:58 G	45811417.82	45811418.00	45811418.18	0.1897	0.0032
Mercury	120722-10-01 06:12 G	45814137.64	45814137.76	45814137.87	0.1934	0.0536
Mercury	120731-04-12 08:36 G	45817252.71	45817252.86	45817253.01	0.1606	0.0619

Mercury	120732-02-21 12:55 G	45817567.93	45817568.04	45817568.14	0.1939	0.0861
Mercury	120740-09-01 12:41 G	45820682.88	45820683.03	45820683.18	0.1602	0.0465
Mercury	120750-01-22 17:00 G	45824113.17	45824113.21	45824113.26	0.1599	0.1521
Mercury	120762-04-01 06:12 G	45828564.65	45828564.76	45828564.88	0.1934	0.0704
Mercury	120770-10-11 09:05 G	45831679.74	45831679.88	45831680.02	0.1606	0.0789
Mercury	120771-08-22 12:55 G	45831994.93	45831995.04	45831995.15	0.1939	0.0709
Venus	120776-07-10 17:14 G	45833779.05	45833779.22	45833779.39	0.1641	0.0077
Mercury	120780-03-02 13:10 G	45835109.90	45835110.05	45835110.21	0.1602	0.0299
Venus	120781-02-15 14:22 G	45835459.94	45835460.10	45835460.27	0.1901	0.0785
Moon	120787-01-17 07:10 G	45837621.62	45837621.80	45837621.98	0.1728	0.0556
Earth	120787-01-17 13:53 G	45837621.89	45837622.08	45837622.28	0.1727	0.0272 *
Mercury	120789-07-23 17:43 G	45838540.16	45838540.24	45838540.32	0.1599	0.1348
Mercury	120801-09-30 06:12 G	45842991.65	45842991.76	45842991.87	0.1934	0.0835
Mercury	120810-04-11 09:34 G	45846106.77	45846106.90	45846107.03	0.1606	0.0955
Mercury	120811-02-20 13:10 G	45846421.93	45846422.05	45846422.16	0.1939	0.0533
Mercury	120819-09-01 13:38 G	45849536.92	45849537.07	45849537.23	0.1603	0.0136
Mercury	120829-01-21 18:12 G	45852967.16	45852967.26	45852967.36	0.1599	0.1185
Mercury	120841-03-31 06:26 G	45857418.67	45857418.77	45857418.87	0.1934	0.1005
Venus	120842-05-08 05:43 G	45857821.57	45857821.74	45857821.91	0.1639	0.0175
Venus	120846-12-13 17:14 G	45859502.13	45859502.22	45859502.32	0.1905	0.1598
Mercury	120849-10-10 10:02 G	45860533.81	45860533.92	45860534.04	0.1606	0.1136
Mercury	120850-08-21 13:10 G	45860848.93	45860849.05	45860849.16	0.1938	0.0391
Mercury	120859-03-02 14:22 G	45863963.94	45863964.10	45863964.26	0.1602	0.0050
Mercury	120860-01-11 19:38 G	45864279.28	45864279.32	45864279.36	0.1943	0.1809
Mercury	120868-07-22 18:26 G	45867394.16	45867394.27	45867394.39	0.1599	0.1030
Mercury	120880-09-29 06:26 G	45871845.68	45871845.77	45871845.87	0.1933	0.1168
Mercury	120889-04-10 10:46 G	45874960.86	45874960.95	45874961.04	0.1606	0.1308
Mercury	120890-02-19 13:10 G	45875275.93	45875276.05	45875276.17	0.1938	0.0226
Mercury	120898-08-31 14:50 G	45878390.96	45878391.12	45878391.27	0.1603	0.0210
Mercury	120899-07-12 19:53 G	45878706.26	45878706.33	45878706.39	0.1943	0.1647

Mercury	120908-01-22 19:10 G	45881821.17	45881821.30	45881821.43	0.1600	0.0853
Venus	120908-03-05 17:58 G	45881864.09	45881864.25	45881864.42	0.1636	0.0428
Mercury	120920-03-31 06:26 G	45886272.69	45886272.77	45886272.86	0.1933	0.1311
Mercury	120928-10-10 11:14 G	45889387.91	45889387.97	45889388.03	0.1606	0.1473
Mercury	120929-08-21 13:24 G	45889702.94	45889703.06	45889703.18	0.1938	0.0075
Mercury	120938-03-02 15:19 G	45892817.99	45892818.14	45892818.29	0.1603	0.0378
Mercury	120939-01-11 19:53 G	45893133.26	45893133.33	45893133.41	0.1942	0.1480
Mercury	120947-07-23 19:38 G	45896248.18	45896248.32	45896248.46	0.1600	0.0688
Mercury	120959-09-30 06:41 G	45900699.70	45900699.78	45900699.85	0.1933	0.1473
Mercury	120969-02-19 13:24 G	45904129.94	45904130.06	45904130.18	0.1938	0.0093
Earth	120970-07-20 13:38 G	45904645.89	45904646.07	45904646.25	0.1806	0.0552
Moon	120970-07-20 17:29 G	45904646.06	45904646.23	45904646.40	0.1806	0.0484 *
Venus	120974-01-01 05:58 G	45905906.60	45905906.75	45905906.91	0.1634	0.0688
Mercury	120977-08-31 15:48 G	45907245.01	45907245.16	45907245.31	0.1603	0.0550
Mercury	120978-07-12 19:53 G	45907560.25	45907560.33	45907560.42	0.1943	0.1331
Mercury	120987-01-21 20:07 G	45910675.19	45910675.34	45910675.49	0.1600	0.0527
Mercury	120996-06-13 00:41 G	45914105.51	45914105.53	45914105.56	0.1597	0.1567
Mercury	120999-03-31 06:41 G	45915126.72	45915126.78	45915126.85	0.1933	0.1639

122ND MILLENNIUM CE

This is a list of transits visible from Mars in the 122nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	121005-12-31 23:14 G		45917593.39	45917593.47	45917593.54	0.1642	0.1475	

Mercury	121008-08-21 13:24 G	45918556.94	45918557.06	45918557.18	0.1938	0.0247
Venus	121010-08-08 23:29 G	45919274.35	45919274.48	45919274.61	0.1899	0.1251
Mercury	121017-03-02 16:31 G	45921672.04	45921672.19	45921672.33	0.1603	0.0726
Mercury	121018-01-11 20:07 G	45921987.25	45921987.34	45921987.44	0.1942	0.1153
Mercury	121026-07-23 20:36 G	45925102.21	45925102.36	45925102.52	0.1600	0.0355
Mercury	121035-12-14 01:10 G	45928532.48	45928532.55	45928532.62	0.1597	0.1407
Mercury	121038-09-30 06:41 G	45929553.74	45929553.78	45929553.82	0.1933	0.1775
Venus	121039-10-30 18:41 G	45929949.14	45929949.28	45929949.42	0.1632	0.0928
Mercury	121048-02-20 13:38 G	45932983.96	45932984.07	45932984.19	0.1938	0.0427
Mercury	121056-08-31 16:46 G	45936099.07	45936099.20	45936099.34	0.1603	0.0892
Mercury	121057-07-12 20:07 G	45936414.24	45936414.34	45936414.45	0.1942	0.1004
Mercury	121066-01-21 21:05 G	45939529.23	45939529.38	45939529.54	0.1600	0.0189
Moon	121071-01-19 21:05 G	45941353.17	45941353.38	45941353.60	0.1735	0.0068
Earth	121071-01-20 01:24 G	45941353.36	45941353.56	45941353.76	0.1735	0.0008 *
Venus	121071-10-29 11:29 G	45941635.86	45941635.98	45941636.09	0.1640	0.1213
Mercury	121075-06-14 01:38 G	45942959.48	45942959.57	45942959.67	0.1597	0.1237
Venus	121076-06-05 01:53 G	45943316.41	45943316.58	45943316.75	0.1903	0.0427
Mercury	121087-08-21 13:38 G	45947410.95	45947411.07	45947411.18	0.1937	0.0565
Mercury	121096-03-01 17:29 G	45950526.11	45950526.23	45950526.34	0.1603	0.1064
Mercury	121097-01-10 20:22 G	45950841.24	45950841.35	45950841.46	0.1942	0.0841
Mercury	121105-07-23 21:34 G	45953956.24	45953956.40	45953956.56	0.1600	0.0027
Venus	121105-08-28 06:41 G	45953991.67	45953991.78	45953991.90	0.1629	0.1185
Mercury	121114-12-14 02:07 G	45957386.48	45957386.59	45957386.71	0.1597	0.1073
Mercury	121127-02-20 13:38 G	45961837.96	45961838.07	45961838.18	0.1937	0.0730
Mercury	121135-09-01 17:58 G	45964953.15	45964953.25	45964953.35	0.1604	0.1236
Mercury	121136-07-12 20:22 G	45965268.24	45965268.35	45965268.47	0.1942	0.0679
Venus	121137-08-26 23:43 G	45965678.35	45965678.49	45965678.63	0.1638	0.0962
Venus	121142-04-03 05:14 G	45967358.55	45967358.72	45967358.89	0.1907	0.0368
Mercury	121145-01-21 22:17 G	45968383.27	45968383.43	45968383.58	0.1600	0.0156
Mercury	121154-06-14 02:36 G	45971813.48	45971813.61	45971813.74	0.1597	0.0911

Mercury	121166-08-21 13:53 G	45976264.98	45976265.08	45976265.19	0.1937	0.0896
Venus	121171-06-25 19:24 G	45978034.23	45978034.31	45978034.39	0.1627	0.1419
Mercury	121175-03-02 18:26 G	45979380.20	45979380.27	45979380.34	0.1604	0.1409
Mercury	121176-01-11 20:36 G	45979695.24	45979695.36	45979695.48	0.1941	0.0513
Mercury	121184-07-22 22:45 G	45982810.29	45982810.45	45982810.60	0.1600	0.0322
Mercury	121193-12-13 03:05 G	45986240.50	45986240.63	45986240.77	0.1597	0.0743
Venus	121203-06-24 11:57 G	45989720.85	45989721.00	45989721.16	0.1635	0.0707
Mercury	121206-02-19 13:53 G	45990691.98	45990692.08	45990692.18	0.1937	0.1044
Venus	121208-01-29 07:24 G	45991400.68	45991400.81	45991400.95	0.1911	0.1212
Mercury	121214-08-31 18:55 G	45993807.27	45993807.29	45993807.31	0.1604	0.1581
Mercury	121215-07-12 20:36 G	45994122.24	45994122.36	45994122.48	0.1942	0.0359
Mercury	121224-01-21 23:00 G	45997237.31	45997237.46	45997237.61	0.1601	0.0484
Mercury	121224-12-02 03:05 G	45997552.59	45997552.63	45997552.67	0.1945	0.1795
Mercury	121233-06-13 03:33 G	46000667.51	46000667.65	46000667.80	0.1598	0.0578
Mercury	121245-08-20 13:53 G	46005118.99	46005119.08	46005119.18	0.1937	0.1201
Moon	121254-07-22 19:53 G	46008377.17	46008377.33	46008377.50	0.1797	0.0573
Earth	121254-07-23 00:55 G	46008377.36	46008377.54	46008377.73	0.1797	0.0410 *
Mercury	121255-01-10 20:50 G	46008549.25	46008549.37	46008549.49	0.1941	0.0189
Mercury	121263-07-22 23:43 G	46011664.35	46011664.49	46011664.63	0.1601	0.0658
Mercury	121264-06-02 02:50 G	46011979.56	46011979.62	46011979.69	0.1945	0.1660
Venus	121269-04-21 00:41 G	46013763.36	46013763.53	46013763.69	0.1633	0.0460
Mercury	121272-12-12 04:02 G	46015094.52	46015094.67	46015094.82	0.1598	0.0415
Mercury	121282-05-04 08:50 G	46018524.81	46018524.87	46018524.93	0.1595	0.1451
Mercury	121285-02-18 14:07 G	46019546.01	46019546.09	46019546.18	0.1937	0.1380
Mercury	121294-07-11 20:50 G	46022976.25	46022976.37	46022976.49	0.1941	0.0047
Mercury	121303-01-22 00:12 G	46026091.38	46026091.51	46026091.64	0.1601	0.0829
Mercury	121303-12-03 03:05 G	46026406.56	46026406.63	46026406.71	0.1945	0.1482
Mercury	121312-06-13 04:45 G	46029521.54	46029521.70	46029521.85	0.1598	0.0242
Mercury	121321-11-03 09:19 G	46032951.80	46032951.89	46032951.98	0.1595	0.1284
Mercury	121324-08-20 14:07 G	46033973.02	46033973.09	46033973.16	0.1936	0.1511

Mercury 121334-01-10 20:50 G 46037403.25 46037403.37 46037403.49 0.1941 0.0144

Venus 121335-02-17 12:55 G 46037805.87 46037806.04 46037806.21 0.1630 0.0208

Mercury 121342-07-23 00:41 G 46040518.40 46040518.53 46040518.65 0.1601 0.0993

Mercury 121343-06-03 03:19 G 46040833.55 46040833.64 46040833.73 0.1945 0.1312

Mercury 121351-12-13 05:14 G 46043948.56 46043948.72 46043948.87 0.1598 0.0081

Earth 121355-01-22 11:29 G 46045084.78 46045084.98 46045085.17 0.1743 0.0216

Moon 121355-01-22 17:29 G 46045085.02 46045085.23 46045085.43 0.1743 0.0203 *

Mercury 121361-05-04 09:48 G 46047378.80 46047378.91 46047379.02 0.1595 0.1122

Mercury 121364-02-19 14:21 G 46048400.04 46048400.10 46048400.15 0.1936 0.1678

Venus 121371-09-23 13:24 G 46051172.97 46051173.06 46051173.15 0.1906 0.1636

Mercury 121373-07-11 21:05 G 46051830.26 46051830.38 46051830.50 0.1940 0.0290

Mercury 121382-01-21 01:09 G 46054945.45 46054945.55 46054945.66 0.1601 0.1172

Mercury 121382-12-02 03:19 G 46055260.54 46055260.64 46055260.74 0.1945 0.1164

Mercury 121391-06-13 05:29 G 46058375.58 46058375.73 46058375.89 0.1598 0.0090

Mercury 121400-11-03 10:17 G 46061805.81 46061805.93 46061806.05 0.1595 0.0961

Venus 121400-12-16 01:09 G 46061848.38 46061848.55 46061848.72 0.1628 0.0047

Mercury 121403-08-21 14:21 G 46062827.07 46062827.10 46062827.14 0.1936 0.1845

Mercury 121413-01-10 21:05 G 46066257.27 46066257.38 46066257.50 0.1940 0.0450

Mercury 121421-07-23 01:38 G 46069372.49 46069372.57 46069372.66 0.1601 0.1340

Mercury 121422-06-03 03:19 G 46069687.54 46069687.64 46069687.75 0.1945 0.1002

Mercury 121430-12-13 06:12 G 46072802.60 46072802.76 46072802.91 0.1598 0.0261

Venus 121437-07-21 16:17 G 46075215.02 46075215.18 46075215.34 0.1909 0.0824

Mercury 121440-05-04 10:45 G 46076232.82 46076232.95 46076233.09 0.1595 0.0794

Mercury 121452-07-11 21:05 G 46080684.27 46080684.38 46080684.50 0.1941 0.0603

Mercury 121461-01-21 02:07 G 46083799.54 46083799.59 46083799.64 0.1601 0.1504

Mercury 121461-12-02 03:33 G 46084114.55 46084114.65 46084114.76 0.1944 0.0827

Venus 121466-10-13 13:53 G 46085890.91 46085891.08 46085891.25 0.1626 0.0291

Mercury 121470-06-13 06:41 G 46087229.63 46087229.78 46087229.93 0.1598 0.0428

Mercury 121479-11-03 11:14 G 46090659.83 46090659.97 46090660.11 0.1596 0.0627

Mercury 121492-01-10 21:19 G 46095111.28 46095111.39 46095111.50 0.1940 0.0769

Mercury	121501-06-03 03:33 G	46098541.54	46098541.65	46098541.76	0.1944	0.0684
Venus	121503-05-19 18:26 G	46099257.09	46099257.27	46099257.44	0.1913	0.0038
Mercury	121509-12-13 06:55 G	46101656.65	46101656.79	46101656.94	0.1598	0.0592
Mercury	121519-05-05 11:43 G	46105086.84	46105086.99	46105087.14	0.1596	0.0469
Mercury	121528-09-24 16:31 G	46108517.14	46108517.19	46108517.24	0.1593	0.1497
Mercury	121531-07-12 21:19 G	46109538.28	46109538.39	46109538.49	0.1940	0.0917
Venus	121532-08-11 01:53 G	46109933.42	46109933.58	46109933.74	0.1624	0.0547
Moon	121538-07-26 05:00 G	46112108.52	46112108.71	46112108.90	0.1788	0.0274
Earth	121538-07-26 12:41 G	46112108.84	46112109.03	46112109.22	0.1789	0.0259 *
Mercury	121540-12-02 03:48 G	46112968.54	46112968.66	46112968.78	0.1944	0.0506
Mercury	121549-06-13 07:38 G	46116083.68	46116083.82	46116083.96	0.1599	0.0765
Mercury	121558-11-03 12:12 G	46119513.85	46119514.01	46119514.16	0.1596	0.0302
Venus	121564-08-09 18:26 G	46121620.23	46121620.27	46121620.31	0.1632	0.1580
Mercury	121568-03-25 17:00 G	46122944.13	46122944.21	46122944.29	0.1593	0.1340
Venus	121569-03-15 21:05 G	46123299.23	46123299.38	46123299.54	0.1916	0.0866
Mercury	121571-01-10 21:19 G	46123965.30	46123965.39	46123965.49	0.1940	0.1090
Mercury	121580-06-02 03:48 G	46127395.55	46127395.66	46127395.78	0.1944	0.0352
Mercury	121588-12-12 08:07 G	46130510.71	46130510.84	46130510.96	0.1599	0.0932
Mercury	121589-10-23 10:02 G	46130825.88	46130825.92	46130825.96	0.1947	0.1831
Mercury	121598-05-04 12:41 G	46133940.87	46133941.03	46133941.18	0.1596	0.0136
Venus	121598-06-08 14:36 G	46133975.96	46133976.11	46133976.26	0.1622	0.0781
Mercury	121607-09-24 17:29 G	46137371.13	46137371.23	46137371.33	0.1593	0.1171
Mercury	121610-07-11 21:33 G	46138392.31	46138392.40	46138392.49	0.1939	0.1240
Mercury	121619-12-02 03:48 G	46141822.54	46141822.66	46141822.78	0.1944	0.0201
Mercury	121628-06-12 08:21 G	46144937.74	46144937.85	46144937.97	0.1599	0.1095
Mercury	121629-04-23 10:17 G	46145252.87	46145252.93	46145252.99	0.1947	0.1652
Venus	121630-06-07 06:41 G	46145662.69	46145662.78	46145662.88	0.1629	0.1325
Venus	121635-01-10 23:00 G	46147341.39	46147341.46	46147341.53	0.1920	0.1747
Mercury	121637-11-02 13:09 G	46148367.89	46148368.05	46148368.20	0.1596	0.0047
Earth	121639-01-24 18:55 G	46148816.10	46148816.29	46148816.48	0.1752	0.0341

Moon	121639-01-25 02:07 G	46148816.41	46148816.59	46148816.76	0.1751	0.0714 *
Mercury	121647-03-25 17:57 G	46151798.13	46151798.25	46151798.37	0.1594	0.1010
Mercury	121650-01-09 21:33 G	46152819.32	46152819.40	46152819.48	0.1939	0.1397
Mercury	121659-06-02 04:02 G	46156249.55	46156249.67	46156249.79	0.1944	0.0038
Venus	121664-04-05 03:05 G	46158018.49	46158018.63	46158018.76	0.1620	0.1026
Mercury	121667-12-12 09:05 G	46159364.79	46159364.88	46159364.97	0.1599	0.1272
Mercury	121668-10-22 10:17 G	46159679.85	46159679.93	46159680.00	0.1947	0.1504
Mercury	121677-05-03 13:38 G	46162794.91	46162795.07	46162795.22	0.1596	0.0201
Mercury	121686-09-23 18:12 G	46166225.13	46166225.26	46166225.39	0.1594	0.0856
Mercury	121689-07-10 21:33 G	46167246.33	46167246.40	46167246.47	0.1940	0.1555
Venus	121696-04-03 19:24 G	46169705.18	46169705.31	46169705.44	0.1627	0.1078
Mercury	121698-12-01 04:17 G	46170676.56	46170676.68	46170676.80	0.1943	0.0153
Mercury	121707-06-13 09:33 G	46173791.83	46173791.90	46173791.96	0.1599	0.1441
Mercury	121708-04-23 10:17 G	46174106.85	46174106.93	46174107.02	0.1947	0.1340
Mercury	121716-11-02 14:07 G	46177221.93	46177222.09	46177222.24	0.1596	0.0366
Mercury	121726-03-25 18:55 G	46180652.15	46180652.29	46180652.43	0.1594	0.0685
Mercury	121729-01-09 21:48 G	46181673.35	46181673.41	46181673.46	0.1939	0.1718
Venus	121730-02-01 15:33 G	46182061.04	46182061.15	46182061.25	0.1618	0.1262
Mercury	121738-06-02 04:02 G	46185103.55	46185103.67	46185103.79	0.1943	0.0288
Mercury	121747-10-23 10:31 G	46188533.84	46188533.94	46188534.04	0.1947	0.1165
Mercury	121756-05-03 14:21 G	46191648.95	46191649.10	46191649.25	0.1596	0.0527
Venus	121762-01-31 07:38 G	46193747.67	46193747.82	46193747.96	0.1625	0.0824
Mercury	121765-09-23 19:09 G	46195079.16	46195079.30	46195079.45	0.1594	0.0524
Mercury	121768-07-10 21:48 G	46196100.38	46196100.41	46196100.43	0.1939	0.1866
Mercury	121775-02-14 00:26 G	46198509.48	46198509.52	46198509.55	0.1591	0.1544
Mercury	121777-12-01 04:17 G	46199530.56	46199530.68	46199530.80	0.1943	0.0458
Mercury	121787-04-23 10:31 G	46202960.84	46202960.94	46202961.04	0.1947	0.1018
Mercury	121795-11-02 14:50 G	46206075.98	46206076.12	46206076.26	0.1596	0.0695
Venus	121795-11-30 04:02 G	46206103.61	46206103.67	46206103.73	0.1616	0.1501
Venus	121798-09-05 04:45 G	46207113.56	46207113.70	46207113.85	0.1915	0.1132

Mercury	121805-03-25 19:38 G	46209506.17	46209506.32	46209506.47	0.1594	0.0363
Mercury	121814-08-16 00:41 G	46212936.46	46212936.53	46212936.60	0.1592	0.1388
Mercury	121817-06-02 04:17 G	46213957.57	46213957.68	46213957.80	0.1943	0.0619
Moon	121822-07-28 17:29 G	46215840.05	46215840.23	46215840.42	0.1780	0.0530
Earth	121822-07-29 00:12 G	46215840.32	46215840.51	46215840.70	0.1780	0.0110 *
Mercury	121826-10-23 10:31 G	46217387.84	46217387.94	46217388.05	0.1947	0.0856
Venus	121827-11-29 19:53 G	46217790.17	46217790.33	46217790.50	0.1623	0.0574
Mercury	121835-05-04 15:19 G	46220503.01	46220503.14	46220503.27	0.1597	0.0866
Mercury	121844-09-23 20:07 G	46223933.19	46223933.34	46223933.50	0.1594	0.0194
Mercury	121854-02-14 01:09 G	46227363.45	46227363.55	46227363.64	0.1592	0.1232
Mercury	121856-12-01 04:17 G	46228384.57	46228384.68	46228384.79	0.1943	0.0770
Venus	121864-07-03 07:09 G	46231155.63	46231155.80	46231155.98	0.1918	0.0281
Mercury	121866-04-23 10:45 G	46231814.84	46231814.95	46231815.07	0.1947	0.0676
Mercury	121874-11-02 15:48 G	46234930.04	46234930.16	46234930.28	0.1597	0.1031
Mercury	121884-03-24 20:36 G	46238360.20	46238360.36	46238360.52	0.1594	0.0031
Mercury	121893-08-15 01:38 G	46241790.45	46241790.57	46241790.68	0.1592	0.1064
Venus	121893-09-26 08:36 G	46241832.69	46241832.86	46241833.03	0.1621	0.0331
Mercury	121896-06-01 04:31 G	46242811.58	46242811.69	46242811.79	0.1943	0.0934
Mercury	121905-10-23 10:45 G	46246241.83	46246241.95	46246242.07	0.1946	0.0532
Mercury	121914-05-04 16:17 G	46249357.08	46249357.18	46249357.28	0.1597	0.1196
Earth	121923-01-28 00:26 G	46252547.33	46252547.52	46252547.71	0.1760	0.0395
Moon	121923-01-28 08:21 G	46252547.66	46252547.85	46252548.04	0.1760	0.0507 *
Mercury	121923-09-24 20:50 G	46252787.22	46252787.37	46252787.53	0.1594	0.0136
Venus	121930-05-01 09:05 G	46255197.71	46255197.88	46255198.05	0.1921	0.0612
Mercury	121933-02-14 02:07 G	46256217.46	46256217.59	46256217.71	0.1592	0.0903
Mercury	121935-12-02 04:45 G	46257238.60	46257238.70	46257238.79	0.1942	0.1102
Mercury	121945-04-23 11:00 G	46260668.84	46260668.96	46260669.07	0.1946	0.0373
Mercury	121953-11-02 16:45 G	46263784.12	46263784.20	46263784.28	0.1597	0.1368
Mercury	121954-09-13 17:00 G	46264099.18	46264099.21	46264099.24	0.1949	0.1855
Venus	121959-07-25 20:36 G	46265875.19	46265875.36	46265875.54	0.1619	0.0088

Mercury	121963-03-25 21:33 G	46267214.25	46267214.40	46267214.55	0.1594	0.0303
Mercury	121972-08-15 02:21 G	46270644.46	46270644.60	46270644.74	0.1592	0.0746
Mercury	121975-06-02 04:31 G	46271665.60	46271665.69	46271665.78	0.1943	0.1246
Mercury	121984-10-22 11:00 G	46275095.84	46275095.96	46275096.08	0.1946	0.0196
Mercury	121993-05-03 17:14 G	46278211.18	46278211.22	46278211.26	0.1597	0.1536
Mercury	121994-03-14 17:00 G	46278526.16	46278526.21	46278526.27	0.1949	0.1690
Venus	121996-02-26 11:29 G	46279239.87	46279239.98	46279240.09	0.1925	0.1473

123RD MILLENNIUM CE

This is a list of transits visible from Mars in the 123rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	122002-09-23 22:02 G		46281641.27	46281641.42	46281641.57	0.1594	0.0469	
Mercury	122012-02-14 02:50 G		46285071.48	46285071.62	46285071.77	0.1592	0.0577	
Mercury	122014-12-01 04:45 G		46286092.62	46286092.70	46286092.78	0.1942	0.1416	
Mercury	122024-04-22 11:00 G		46289522.84	46289522.96	46289523.08	0.1946	0.0050	
Venus	122025-05-22 09:33 G		46289917.73	46289917.90	46289918.07	0.1617	0.0157	
Mercury	122033-09-12 17:14 G		46292953.14	46292953.22	46292953.29	0.1949	0.1527	
Mercury	122042-03-24 22:17 G		46296068.29	46296068.43	46296068.58	0.1595	0.0628	
Mercury	122051-08-15 03:19 G		46299498.49	46299498.64	46299498.79	0.1592	0.0418	
Mercury	122054-06-01 04:45 G		46300519.63	46300519.70	46300519.77	0.1942	0.1574	
Mercury	122061-01-04 08:21 G		46302928.79	46302928.85	46302928.92	0.1590	0.1438	
Mercury	122063-10-22 11:14 G		46303949.84	46303949.97	46303950.09	0.1946	0.0142	
Mercury	122073-03-13 17:14 G		46307380.14	46307380.22	46307380.31	0.1949	0.1357	

Mercury	122081-09-22 22:45 G	46310495.32	46310495.45	46310495.59	0.1595	0.0800
Mercury	122091-02-13 03:33 G	46313925.50	46313925.65	46313925.81	0.1592	0.0260
Venus	122091-03-19 22:02 G	46313960.25	46313960.42	46313960.58	0.1615	0.0403
Mercury	122093-11-30 04:45 G	46314946.65	46314946.70	46314946.76	0.1942	0.1729
Mercury	122100-07-06 08:50 G	46317355.78	46317355.87	46317355.96	0.1590	0.1280
Mercury	122103-04-23 11:29 G	46318376.86	46318376.98	46318377.09	0.1946	0.0309
Moon	122106-07-31 05:14 G	46319571.54	46319571.72	46319571.91	0.1771	0.0214
Earth	122106-07-31 12:55 G	46319571.85	46319572.04	46319572.22	0.1772	0.0074 *
Mercury	122112-09-12 17:14 G	46321807.13	46321807.22	46321807.32	0.1949	0.1204
Mercury	122121-03-24 23:14 G	46324922.35	46324922.47	46324922.60	0.1595	0.0967
Mercury	122130-08-15 04:17 G	46328352.52	46328352.68	46328352.83	0.1592	0.0095
Mercury	122133-06-01 05:00 G	46329373.69	46329373.71	46329373.73	0.1942	0.1895
Mercury	122140-01-05 09:19 G	46331782.78	46331782.89	46331783.00	0.1590	0.1117
Mercury	122142-10-22 11:14 G	46332803.85	46332803.97	46332804.09	0.1945	0.0439
Mercury	122152-03-13 17:29 G	46336234.13	46336234.23	46336234.33	0.1949	0.1027
Venus	122157-01-15 10:31 G	46338002.78	46338002.94	46338003.10	0.1613	0.0636
Venus	122159-10-21 17:29 G	46339012.11	46339012.23	46339012.34	0.1920	0.1435
Mercury	122160-09-22 23:43 G	46339349.38	46339349.49	46339349.60	0.1595	0.1130
Mercury	122170-02-13 04:31 G	46342779.54	46342779.69	46342779.85	0.1593	0.0089
Mercury	122179-07-06 09:48 G	46346209.78	46346209.91	46346210.03	0.1590	0.0957
Mercury	122182-04-22 11:29 G	46347230.86	46347230.98	46347231.09	0.1945	0.0613
Venus	122189-01-14 02:21 G	46349689.52	46349689.60	46349689.68	0.1620	0.1437
Mercury	122191-09-12 17:29 G	46350661.13	46350661.23	46350661.34	0.1948	0.0869
Mercury	122200-03-25 00:12 G	46353776.42	46353776.51	46353776.60	0.1595	0.1306
Earth	122207-01-30 05:00 G	46356278.52	46356278.71	46356278.90	0.1769	0.0397
Moon	122207-01-30 08:21 G	46356278.64	46356278.85	46356279.06	0.1769	0.0263 *
Mercury	122209-08-15 05:00 G	46357206.55	46357206.71	46357206.86	0.1593	0.0236
Mercury	122219-01-05 10:02 G	46360636.79	46360636.92	46360637.06	0.1591	0.0796
Mercury	122221-10-22 11:29 G	46361657.87	46361657.98	46361658.09	0.1945	0.0787
Venus	122222-11-13 23:14 G	46362045.33	46362045.47	46362045.62	0.1611	0.0871

Venus	122225-08-18 19:09 G	46363054.13	46363054.30	46363054.47	0.1923	0.0543
Mercury	122231-03-14 17:43 G	46365088.13	46365088.24	46365088.35	0.1948	0.0700
Mercury	122239-09-24 00:41 G	46368203.47	46368203.53	46368203.59	0.1595	0.1472
Mercury	122249-02-13 05:29 G	46371633.58	46371633.73	46371633.88	0.1593	0.0409
Venus	122254-11-12 15:05 G	46373732.01	46373732.13	46373732.24	0.1618	0.1191
Mercury	122258-07-06 10:31 G	46375063.80	46375063.94	46375064.08	0.1590	0.0631
Mercury	122261-04-22 11:29 G	46376084.88	46376084.98	46376085.09	0.1945	0.0931
Mercury	122270-09-12 17:43 G	46379515.13	46379515.24	46379515.36	0.1949	0.0535
Mercury	122288-08-14 05:57 G	46386060.60	46386060.75	46386060.89	0.1593	0.0575
Venus	122288-09-10 11:57 G	46386087.88	46386088.00	46386088.13	0.1610	0.1101
Venus	122291-06-15 21:33 G	46387096.22	46387096.40	46387096.57	0.1926	0.0332
Mercury	122298-01-04 11:00 G	46389490.81	46389490.96	46389491.11	0.1591	0.0465
Mercury	122300-10-22 11:43 G	46390511.89	46390511.99	46390512.09	0.1945	0.1100
Mercury	122307-05-28 16:17 G	46392921.13	46392921.18	46392921.23	0.1589	0.1480
Mercury	122310-03-14 17:57 G	46393942.13	46393942.25	46393942.37	0.1948	0.0369
Mercury	122319-08-04 23:43 G	46397372.47	46397372.49	46397372.52	0.1951	0.1895
Venus	122320-09-10 03:33 G	46397774.51	46397774.65	46397774.79	0.1616	0.0951
Mercury	122328-02-14 06:12 G	46400487.63	46400487.76	46400487.90	0.1593	0.0738
Mercury	122337-07-06 11:29 G	46403917.83	46403917.98	46403918.13	0.1591	0.0306
Mercury	122340-04-22 11:57 G	46404938.91	46404939.00	46404939.09	0.1945	0.1277
Mercury	122346-11-26 16:45 G	46407348.12	46407348.20	46407348.28	0.1589	0.1320
Mercury	122349-09-12 17:57 G	46408369.13	46408369.25	46408369.37	0.1948	0.0211
Venus	122354-07-10 00:41 G	46410130.44	46410130.53	46410130.63	0.1608	0.1334
Venus	122357-04-12 23:14 G	46411138.34	46411138.47	46411138.60	0.1929	0.1241
Mercury	122359-02-03 00:12 G	46411799.45	46411799.51	46411799.56	0.1951	0.1706
Mercury	122367-08-15 06:55 G	46414914.66	46414914.79	46414914.92	0.1593	0.0911
Mercury	122377-01-04 11:57 G	46418344.84	46418345.00	46418345.15	0.1591	0.0148
Mercury	122379-10-22 11:43 G	46419365.91	46419365.99	46419366.07	0.1945	0.1416
Mercury	122386-05-27 17:00 G	46421775.11	46421775.21	46421775.32	0.1589	0.1166
Venus	122386-07-08 16:02 G	46421817.01	46421817.17	46421817.32	0.1614	0.0705

Mercury	122389-03-13 18:12 G	46422796.14	46422796.26	46422796.38	0.1948	0.0032
Earth	122390-08-03 02:50 G	46423303.43	46423303.62	46423303.80	0.1764	0.0288
Moon	122390-08-03 09:48 G	46423303.72	46423303.91	46423304.09	0.1764	0.0169 *
Mercury	122398-08-04 00:12 G	46426226.44	46426226.51	46426226.58	0.1950	0.1540
Mercury	122407-02-13 07:24 G	46429341.69	46429341.81	46429341.92	0.1593	0.1079
Mercury	122416-07-05 12:26 G	46432771.86	46432772.02	46432772.17	0.1591	0.0051
Mercury	122419-04-22 11:57 G	46433792.93	46433793.00	46433793.07	0.1944	0.1593
Venus	122420-05-06 13:38 G	46434173.03	46434173.07	46434173.11	0.1607	0.1560
Mercury	122425-11-25 17:43 G	46436202.12	46436202.24	46436202.36	0.1589	0.0994
Mercury	122428-09-11 18:12 G	46437223.14	46437223.26	46437223.38	0.1947	0.0129
Mercury	122438-02-02 00:12 G	46440653.43	46440653.51	46440653.60	0.1951	0.1381
Mercury	122446-08-14 07:38 G	46443768.72	46443768.82	46443768.92	0.1593	0.1238
Venus	122452-05-05 05:00 G	46445859.55	46445859.71	46445859.88	0.1612	0.0480
Mercury	122456-01-04 12:41 G	46447198.88	46447199.03	46447199.19	0.1591	0.0197
Mercury	122458-10-21 12:12 G	46448219.96	46448220.01	46448220.05	0.1944	0.1766
Mercury	122465-05-26 17:57 G	46450629.12	46450629.25	46450629.38	0.1589	0.0834
Mercury	122468-03-12 18:26 G	46451650.15	46451650.27	46451650.39	0.1947	0.0302
Mercury	122477-08-03 00:26 G	46455080.42	46455080.52	46455080.61	0.1950	0.1206
Mercury	122486-02-12 08:21 G	46458195.78	46458195.85	46458195.91	0.1593	0.1419
Moon	122491-01-31 07:38 G	46460009.65	46460009.82	46460010.00	0.1778	0.0544
Earth	122491-01-31 08:36 G	46460009.66	46460009.86	46460010.05	0.1778	0.0352 *
Mercury	122495-07-05 13:09 G	46461625.90	46461626.05	46461626.20	0.1591	0.0359
Mercury	122498-04-21 11:57 G	46462646.99	46462647.00	46462647.02	0.1944	0.1913
Mercury	122504-11-25 18:26 G	46465056.13	46465056.27	46465056.41	0.1589	0.0677
Mercury	122507-09-12 18:26 G	46466077.15	46466077.27	46466077.39	0.1948	0.0467
Mercury	122517-02-02 00:41 G	46469507.42	46469507.53	46469507.63	0.1950	0.1029
Venus	122518-03-03 17:29 G	46469902.06	46469902.23	46469902.40	0.1611	0.0239
Venus	122520-12-06 06:26 G	46470910.70	46470910.77	46470910.84	0.1925	0.1755
Mercury	122525-08-14 08:36 G	46472622.86	46472622.86	46472622.87	0.1594	0.1588
Mercury	122535-01-04 13:38 G	46476052.93	46476053.07	46476053.22	0.1591	0.0528

Mercury	122544-05-26 18:55 G	46479483.14	46479483.29	46479483.43	0.1589	0.0508
Mercury	122547-03-13 18:41 G	46480504.16	46480504.28	46480504.39	0.1947	0.0633
Mercury	122553-10-17 00:12 G	46482913.47	46482913.51	46482913.55	0.1588	0.1520
Mercury	122556-08-03 00:26 G	46483934.42	46483934.52	46483934.63	0.1950	0.0880
Mercury	122574-07-05 14:07 G	46490479.95	46490480.09	46490480.23	0.1591	0.0692
Mercury	122583-11-25 19:24 G	46493910.16	46493910.31	46493910.46	0.1589	0.0343
Venus	122583-12-30 06:26 G	46493944.59	46493944.77	46493944.94	0.1609	0.0023
Mercury	122586-09-11 18:41 G	46494931.17	46494931.28	46494931.39	0.1947	0.0791
Venus	122586-10-03 08:21 G	46494952.69	46494952.85	46494953.00	0.1928	0.0850
Mercury	122593-04-17 00:41 G	46497340.46	46497340.53	46497340.61	0.1588	0.1354
Mercury	122596-02-02 00:55 G	46498361.42	46498361.54	46498361.65	0.1950	0.0689
Mercury	122614-01-04 14:36 G	46504906.98	46504907.11	46504907.24	0.1591	0.0859
Mercury	122623-05-27 19:38 G	46508337.17	46508337.32	46508337.48	0.1590	0.0185
Mercury	122626-03-13 18:55 G	46509358.18	46509358.29	46509358.39	0.1947	0.0976
Mercury	122632-10-17 01:09 G	46511767.45	46511767.55	46511767.65	0.1588	0.1193
Mercury	122635-08-04 00:55 G	46512788.42	46512788.54	46512788.66	0.1950	0.0528
Venus	122649-10-27 19:09 G	46517987.13	46517987.30	46517987.47	0.1607	0.0221
Venus	122652-07-31 09:48 G	46518994.74	46518994.91	46518995.09	0.1931	0.0073
Mercury	122653-07-05 15:05 G	46519334.01	46519334.13	46519334.25	0.1592	0.1032
Mercury	122662-11-25 20:21 G	46522764.19	46522764.35	46522764.50	0.1589	0.0046
Mercury	122665-09-11 18:55 G	46523785.19	46523785.29	46523785.39	0.1947	0.1126
Mercury	122672-04-17 01:24 G	46526194.45	46526194.56	46526194.68	0.1588	0.1038
Moon	122674-08-05 12:26 G	46527034.84	46527035.02	46527035.20	0.1755	0.0449
Earth	122674-08-05 19:09 G	46527035.13	46527035.30	46527035.48	0.1756	0.0580 *
Mercury	122675-02-02 00:55 G	46527215.42	46527215.54	46527215.66	0.1950	0.0364
Mercury	122684-06-24 06:55 G	46530645.76	46530645.79	46530645.82	0.1952	0.1883
Mercury	122693-01-03 15:33 G	46533761.05	46533761.15	46533761.25	0.1592	0.1200
Mercury	122702-05-27 20:36 G	46537191.21	46537191.36	46537191.52	0.1590	0.0155
Mercury	122705-03-13 18:55 G	46538212.20	46538212.29	46538212.38	0.1947	0.1296
Mercury	122711-10-18 02:07 G	46540621.46	46540621.59	46540621.72	0.1588	0.0868

Mercury	122714-08-04 01:09 G	46541642.43	46541642.55	46541642.67	0.1950	0.0185
Venus	122715-08-26 08:07 G	46542029.67	46542029.84	46542030.00	0.1606	0.0446
Venus	122718-05-29 12:12 G	46543036.86	46543037.01	46543037.17	0.1933	0.0949
Mercury	122723-12-25 06:55 G	46545072.74	46545072.79	46545072.85	0.1952	0.1726
Mercury	122732-07-05 16:02 G	46548188.09	46548188.17	46548188.24	0.1592	0.1367
Mercury	122741-11-25 21:05 G	46551618.23	46551618.38	46551618.53	0.1590	0.0315
Mercury	122744-09-11 19:09 G	46552639.22	46552639.30	46552639.38	0.1947	0.1472
Venus	122747-08-24 23:29 G	46553716.46	46553716.48	46553716.50	0.1612	0.1599
Mercury	122751-04-18 02:36 G	46555048.47	46555048.61	46555048.74	0.1588	0.0705
Mercury	122754-02-02 01:24 G	46556069.44	46556069.56	46556069.68	0.1949	0.0037
Mercury	122763-06-25 07:09 G	46559499.72	46559499.80	46559499.87	0.1952	0.1556
Mercury	122772-01-04 16:31 G	46562615.15	46562615.19	46562615.22	0.1592	0.1540
Moon	122775-02-03 11:00 G	46563740.75	46563740.96	46563741.17	0.1787	0.0434
Earth	122775-02-03 11:29 G	46563740.78	46563740.98	46563741.18	0.1787	0.0273 *
Mercury	122781-05-26 21:33 G	46566045.25	46566045.40	46566045.55	0.1590	0.0488
Venus	122781-06-22 21:05 G	46566072.22	46566072.38	46566072.54	0.1604	0.0672
Mercury	122784-03-12 19:09 G	46567066.24	46567066.30	46567066.37	0.1946	0.1634
Venus	122784-03-25 13:53 G	46567079.04	46567079.08	46567079.12	0.1936	0.1874
Mercury	122790-10-17 02:50 G	46569475.48	46569475.62	46569475.76	0.1588	0.0544
Mercury	122793-08-03 01:24 G	46570496.44	46570496.56	46570496.68	0.1949	0.0152
Mercury	122800-03-08 08:21 G	46572905.82	46572905.85	46572905.88	0.1587	0.1549
Mercury	122802-12-24 07:24 G	46573926.72	46573926.81	46573926.90	0.1952	0.1361
Venus	122813-06-21 12:12 G	46577758.92	46577759.01	46577759.10	0.1610	0.1358
Mercury	122820-11-24 22:02 G	46580472.28	46580472.42	46580472.56	0.1590	0.0657
Mercury	122823-09-11 19:24 G	46581493.26	46581493.31	46581493.35	0.1946	0.1794
Mercury	122830-04-17 03:19 G	46583902.49	46583902.64	46583902.79	0.1588	0.0376
Mercury	122833-02-01 01:38 G	46584923.45	46584923.57	46584923.69	0.1949	0.0333
Mercury	122839-09-07 08:50 G	46587332.80	46587332.87	46587332.94	0.1587	0.1387
Mercury	122842-06-24 07:24 G	46588353.71	46588353.81	46588353.90	0.1951	0.1219
Venus	122847-04-20 10:02 G	46590114.78	46590114.92	46590115.06	0.1603	0.0896

Mercury	122860-05-25 22:17 G	46594899.30	46594899.43	46594899.57	0.1590	0.0820
Mercury	122869-10-16 03:48 G	46598329.51	46598329.66	46598329.81	0.1588	0.0212
Mercury	122872-08-02 01:38 G	46599350.45	46599350.57	46599350.69	0.1949	0.0490
Mercury	122879-03-08 09:19 G	46601759.80	46601759.89	46601759.99	0.1587	0.1221
Venus	122879-04-19 01:09 G	46601801.43	46601801.55	46601801.68	0.1608	0.1137
Moon	122879-08-04 20:50 G	46601909.26	46601909.37	46601909.47	0.1742	0.1435
Earth	122879-08-05 03:19 G	46601909.53	46601909.64	46601909.74	0.1743	0.1428
Mercury	122881-12-23 07:38 G	46602780.71	46602780.82	46602780.92	0.1952	0.1031
Mercury	122899-11-24 23:00 G	46609326.34	46609326.46	46609326.58	0.1590	0.0992
Mercury	122909-04-17 04:02 G	46612756.52	46612756.67	46612756.83	0.1588	0.0071
Mercury	122912-02-02 01:38 G	46613777.46	46613777.57	46613777.69	0.1949	0.0666
Venus	122913-02-15 23:00 G	46614157.34	46614157.46	46614157.58	0.1602	0.1120
Mercury	122918-09-07 09:48 G	46616186.79	46616186.91	46616187.02	0.1587	0.1064
Mercury	122921-06-24 07:53 G	46617207.72	46617207.83	46617207.94	0.1951	0.0850
Mercury	122939-05-26 23:14 G	46623753.37	46623753.47	46623753.58	0.1590	0.1160
Venus	122945-02-14 13:38 G	46625843.93	46625844.07	46625844.22	0.1607	0.0897
Venus	122947-11-18 21:33 G	46626851.26	46626851.40	46626851.54	0.1932	0.1171
Mercury	122948-10-16 04:45 G	46627183.55	46627183.70	46627183.85	0.1588	0.0123
Mercury	122951-08-03 01:53 G	46628204.47	46628204.58	46628204.69	0.1949	0.0835
Mercury	122958-03-08 10:02 G	46630613.80	46630613.92	46630614.05	0.1587	0.0900
Earth	122958-08-08 13:09 G	46630766.89	46630767.05	46630767.20	0.1749	0.0918
Moon	122958-08-08 19:38 G	46630767.21	46630767.32	46630767.44	0.1749	0.1311
Mercury	122960-12-23 07:53 G	46631634.71	46631634.83	46631634.94	0.1951	0.0697
Mercury	122978-11-24 23:43 G	46638180.41	46638180.49	46638180.58	0.1590	0.1326
Venus	122978-12-14 11:43 G	46638199.90	46638199.99	46638200.08	0.1600	0.1349
Mercury	122988-04-16 05:14 G	46641610.56	46641610.72	46641610.87	0.1589	0.0290
Mercury	122991-02-01 02:07 G	46642631.48	46642631.59	46642631.69	0.1948	0.1007
Mercury	122997-09-06 10:31 G	46645040.81	46645040.94	46645041.08	0.1587	0.0736
Mercury	123000-06-24 07:53 G	46646061.71	46646061.83	46646061.95	0.1951	0.0519

124TH MILLENNIUM CE

This is a list of transits visible from Mars in the 124th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	123010-12-14 02:50	G	46649886.46	46649886.62	46649886.78	0.1605	0.0677	
Venus	123013-09-15 23:14	G	46650893.30	46650893.47	46650893.64	0.1934	0.0243	
Mercury	123018-05-27 00:12	G	46652607.47	46652607.51	46652607.56	0.1590	0.1500	
Mercury	123027-10-17 05:29	G	46656037.58	46656037.73	46656037.88	0.1589	0.0447	
Mercury	123030-08-03 02:07	G	46657058.49	46657058.59	46657058.68	0.1949	0.1165	
Mercury	123037-03-08 11:00	G	46659467.82	46659467.96	46659468.10	0.1587	0.0575	
Mercury	123039-12-24 08:07	G	46660488.72	46660488.84	46660488.97	0.1951	0.0334	
Venus	123044-10-12 00:55	G	46662242.51	46662242.54	46662242.57	0.1599	0.1566	
Mercury	123046-07-29 16:45	G	46662898.18	46662898.20	46662898.21	0.1586	0.1573	
Mercury	123049-05-15 13:53	G	46663919.05	46663919.08	46663919.10	0.1953	0.1901	
Earth	123059-02-05 12:55	G	46667471.84	46667472.04	46667472.24	0.1796	0.0122	
Moon	123059-02-05 13:24	G	46667471.88	46667472.06	46667472.25	0.1796	0.0082	*
Mercury	123067-04-17 05:57	G	46670464.61	46670464.75	46670464.89	0.1589	0.0620	
Mercury	123070-02-01 02:21	G	46671485.51	46671485.60	46671485.68	0.1948	0.1347	
Mercury	123076-09-06 11:29	G	46673894.83	46673894.98	46673895.12	0.1587	0.0413	
Venus	123076-10-10 15:33	G	46673928.99	46673929.15	46673929.32	0.1604	0.0445	
Mercury	123079-06-24 08:07	G	46674915.72	46674915.84	46674915.96	0.1951	0.0182	
Venus	123079-07-14 00:41	G	46674935.36	46674935.53	46674935.69	0.1937	0.0694	
Mercury	123086-01-27 17:00	G	46677325.15	46677325.21	46677325.28	0.1586	0.1416	
Mercury	123088-11-13 13:53	G	46678346.03	46678346.08	46678346.14	0.1953	0.1717	

Mercury	123106-10-17 06:26 G	46684891.64	46684891.77	46684891.90	0.1589	0.0786
Mercury	123109-08-03 02:21 G	46685912.52	46685912.60	46685912.67	0.1948	0.1505
Mercury	123116-03-08 11:57 G	46688321.85	46688322.00	46688322.15	0.1587	0.0243
Mercury	123118-12-24 08:21 G	46689342.73	46689342.85	46689342.97	0.1951	0.0020
Mercury	123125-07-29 17:29 G	46691752.14	46691752.23	46691752.32	0.1586	0.1251
Mercury	123128-05-15 14:07 G	46692773.01	46692773.09	46692773.16	0.1952	0.1552
Venus	123142-08-09 04:31 G	46697971.52	46697971.69	46697971.86	0.1602	0.0221
Venus	123145-05-11 02:50 G	46698977.53	46698977.62	46698977.72	0.1939	0.1598
Mercury	123146-04-17 06:55 G	46699318.66	46699318.79	46699318.91	0.1589	0.0949
Mercury	123149-02-01 02:36 G	46700339.55	46700339.61	46700339.66	0.1948	0.1682
Mercury	123155-09-07 12:12 G	46702748.86	46702749.01	46702749.17	0.1587	0.0086
Mercury	123158-06-24 08:36 G	46703769.74	46703769.86	46703769.98	0.1950	0.0183
Earth	123163-08-08 22:45 G	46705641.30	46705641.45	46705641.60	0.1735	0.1019
Moon	123163-08-09 05:29 G	46705641.56	46705641.73	46705641.90	0.1736	0.0637 *
Mercury	123165-01-27 17:57 G	46706179.14	46706179.25	46706179.36	0.1586	0.1091
Mercury	123167-11-14 14:07 G	46707200.01	46707200.09	46707200.18	0.1952	0.1382
Mercury	123185-10-16 07:24 G	46713745.70	46713745.81	46713745.92	0.1589	0.1123
Mercury	123188-08-02 02:36 G	46714766.57	46714766.61	46714766.64	0.1948	0.1845
Mercury	123195-03-08 12:41 G	46717175.88	46717176.03	46717176.18	0.1587	0.0082
Mercury	123197-12-23 08:36 G	46718196.74	46718196.86	46718196.98	0.1950	0.0337
Mercury	123204-07-28 18:12 G	46720606.14	46720606.26	46720606.38	0.1586	0.0935
Mercury	123207-05-15 14:21 G	46721627.01	46721627.10	46721627.20	0.1953	0.1195
Venus	123208-06-05 17:29 G	46722014.06	46722014.23	46722014.41	0.1601	0.0020
Mercury	123225-04-16 07:38 G	46728172.74	46728172.82	46728172.91	0.1589	0.1290
Mercury	123234-09-06 13:09 G	46731602.90	46731603.05	46731603.20	0.1588	0.0249
Mercury	123237-06-23 08:36 G	46732623.75	46732623.86	46732623.98	0.1950	0.0516
Moon	123242-08-11 04:31 G	46734498.57	46734498.69	46734498.80	0.1741	0.1406
Earth	123242-08-11 07:38 G	46734498.69	46734498.82	46734498.95	0.1741	0.1272 *
Mercury	123244-01-27 18:41 G	46735033.15	46735033.28	46735033.42	0.1586	0.0766
Mercury	123246-11-13 14:21 G	46736054.00	46736054.10	46736054.21	0.1952	0.1033

Mercury	123264-10-15 08:07 G	46742599.78	46742599.84	46742599.90	0.1589	0.1450
Mercury	123274-03-07 13:38 G	46746029.92	46746030.07	46746030.21	0.1588	0.0416
Venus	123274-04-03 06:41 G	46746056.60	46746056.78	46746056.95	0.1600	0.0235
Mercury	123276-12-22 08:50 G	46747050.76	46747050.87	46747050.99	0.1950	0.0702
Mercury	123283-07-28 19:09 G	46749460.16	46749460.30	46749460.44	0.1586	0.0605
Mercury	123286-05-14 14:36 G	46750481.00	46750481.11	46750481.22	0.1952	0.0861
Venus	123309-01-03 10:31 G	46758749.82	46758749.94	46758750.05	0.1936	0.1458
Mercury	123313-09-06 13:53 G	46760456.94	46760457.08	46760457.22	0.1588	0.0576
Mercury	123316-06-23 08:50 G	46761477.76	46761477.87	46761477.98	0.1950	0.0844
Mercury	123323-01-27 19:24 G	46763887.17	46763887.31	46763887.46	0.1586	0.0449
Mercury	123325-11-13 14:50 G	46764908.00	46764908.12	46764908.23	0.1952	0.0680
Mercury	123332-06-19 01:09 G	46767317.50	46767317.55	46767317.62	0.1585	0.1444
Venus	123340-01-30 19:24 G	46770099.14	46770099.31	46770099.47	0.1598	0.0461
Earth	123343-02-07 11:00 G	46771202.76	46771202.96	46771203.16	0.1805	0.0194
Moon	123343-02-07 18:26 G	46771203.06	46771203.27	46771203.48	0.1804	0.0302 *
Mercury	123353-03-07 14:21 G	46774883.97	46774884.10	46774884.24	0.1588	0.0748
Mercury	123355-12-23 09:05 G	46775904.78	46775904.88	46775904.98	0.1950	0.1028
Mercury	123362-07-28 19:53 G	46778314.18	46778314.33	46778314.48	0.1586	0.0282
Mercury	123365-05-14 14:50 G	46779335.00	46779335.12	46779335.24	0.1952	0.0518
Mercury	123371-12-19 01:38 G	46781744.48	46781744.57	46781744.66	0.1585	0.1287
Venus	123372-01-29 09:48 G	46781785.87	46781785.91	46781785.96	0.1603	0.1547
Venus	123374-10-31 11:43 G	46782791.82	46782791.99	46782792.16	0.1938	0.0508
Mercury	123392-09-05 14:50 G	46789310.99	46789311.12	46789311.24	0.1588	0.0909
Mercury	123395-06-23 09:19 G	46790331.79	46790331.89	46790331.98	0.1950	0.1199
Mercury	123402-01-27 20:21 G	46792741.20	46792741.35	46792741.50	0.1587	0.0118
Mercury	123404-11-13 14:50 G	46793762.00	46793762.12	46793762.24	0.1952	0.0349
Venus	123405-11-28 08:21 G	46794141.69	46794141.85	46794142.00	0.1597	0.0691
Mercury	123411-06-20 02:07 G	46796171.48	46796171.59	46796171.70	0.1585	0.1120
Mercury	123414-04-05 20:36 G	46797192.34	46797192.36	46797192.38	0.1953	0.1904
Mercury	123432-03-07 15:05 G	46803738.02	46803738.13	46803738.24	0.1588	0.1073

Mercury	123434-12-23 09:19 G	46804758.80	46804758.89	46804758.97	0.1950	0.1356
Venus	123437-11-26 23:00 G	46805828.37	46805828.46	46805828.56	0.1602	0.1328
Venus	123440-08-28 13:09 G	46806833.88	46806834.05	46806834.22	0.1940	0.0444
Mercury	123441-07-28 20:36 G	46807168.21	46807168.36	46807168.52	0.1587	0.0056
Mercury	123444-05-14 15:05 G	46808189.01	46808189.13	46808189.26	0.1952	0.0166
Moon	123447-08-11 17:14 G	46809373.02	46809373.22	46809373.41	0.1728	0.0412
Earth	123447-08-11 18:26 G	46809373.10	46809373.27	46809373.45	0.1728	0.0609 *
Mercury	123450-12-19 02:21 G	46810598.48	46810598.60	46810598.72	0.1585	0.0963
Mercury	123453-10-04 20:36 G	46811619.31	46811619.36	46811619.42	0.1953	0.1741
Mercury	123471-09-06 15:33 G	46818165.06	46818165.15	46818165.25	0.1588	0.1245
Venus	123471-09-25 21:19 G	46818184.24	46818184.39	46818184.53	0.1596	0.0912
Mercury	123474-06-23 09:19 G	46819185.82	46819185.89	46819185.97	0.1950	0.1532
Mercury	123481-01-26 21:05 G	46821595.23	46821595.38	46821595.53	0.1587	0.0212
Mercury	123483-11-13 15:05 G	46822616.01	46822616.13	46822616.26	0.1951	0.0040
Mercury	123490-06-19 02:50 G	46825025.49	46825025.62	46825025.75	0.1586	0.0809
Mercury	123493-04-04 20:50 G	46826046.30	46826046.37	46826046.44	0.1953	0.1569
Venus	123503-09-25 11:43 G	46829870.86	46829870.99	46829871.12	0.1601	0.1090
Venus	123506-06-26 14:21 G	46830875.98	46830876.10	46830876.22	0.1942	0.1404
Mercury	123511-03-08 16:02 G	46832592.10	46832592.17	46832592.24	0.1588	0.1410
Mercury	123513-12-23 09:33 G	46833612.85	46833612.90	46833612.96	0.1949	0.1710
Mercury	123520-07-28 21:33 G	46836022.25	46836022.40	46836022.55	0.1587	0.0372
Mercury	123523-05-15 15:19 G	46837043.01	46837043.14	46837043.26	0.1951	0.0174
Earth	123526-08-15 02:21 G	46838230.54	46838230.60	46838230.66	0.1734	0.1626
Mercury	123529-12-19 03:19 G	46839452.50	46839452.64	46839452.78	0.1586	0.0642
Mercury	123532-10-04 20:50 G	46840473.29	46840473.37	46840473.46	0.1953	0.1391
Venus	123537-07-24 09:48 G	46842226.79	46842226.91	46842227.03	0.1595	0.1146
Mercury	123550-09-06 16:17 G	46847019.17	46847019.18	46847019.20	0.1588	0.1572
Mercury	123553-06-23 09:33 G	46848039.86	46848039.90	46848039.93	0.1949	0.1856
Mercury	123560-01-27 21:48 G	46850449.27	46850449.41	46850449.56	0.1587	0.0532
Mercury	123562-11-13 15:33 G	46851470.03	46851470.15	46851470.27	0.1952	0.0356

Mercury	123569-06-19 03:33 G	46853879.51	46853879.65	46853879.80	0.1586	0.0482
Venus	123569-07-23 00:41 G	46853913.39	46853913.53	46853913.68	0.1599	0.0866
Mercury	123572-04-04 21:05 G	46854900.29	46854900.38	46854900.48	0.1953	0.1214
Mercury	123578-11-09 09:33 G	46857309.85	46857309.90	46857309.95	0.1585	0.1472
Mercury	123599-07-28 22:17 G	46864876.29	46864876.43	46864876.57	0.1587	0.0700
Mercury	123602-05-14 15:33 G	46865897.03	46865897.15	46865897.26	0.1951	0.0511
Venus	123603-05-21 23:00 G	46866269.38	46866269.46	46866269.55	0.1594	0.1360
Mercury	123608-12-18 04:02 G	46868306.52	46868306.67	46868306.81	0.1586	0.0327
Mercury	123611-10-04 21:05 G	46869327.28	46869327.38	46869327.49	0.1953	0.1050
Mercury	123618-05-10 09:48 G	46871736.83	46871736.91	46871736.99	0.1585	0.1320
Moon	123627-02-08 21:48 G	46874933.26	46874933.41	46874933.57	0.1815	0.1154
Earth	123627-02-09 06:12 G	46874933.58	46874933.76	46874933.95	0.1815	0.0655
Venus	123635-05-20 13:38 G	46877955.91	46877956.07	46877956.23	0.1598	0.0640
Mercury	123639-01-26 22:45 G	46879303.32	46879303.45	46879303.58	0.1587	0.0867
Mercury	123641-11-12 15:33 G	46880324.04	46880324.15	46880324.27	0.1951	0.0680
Mercury	123648-06-18 04:17 G	46882733.53	46882733.68	46882733.84	0.1586	0.0164
Mercury	123651-04-04 21:19 G	46883754.28	46883754.39	46883754.50	0.1953	0.0865
Mercury	123657-11-08 10:17 G	46886163.83	46886163.93	46886164.03	0.1585	0.1161
Venus	123669-03-18 11:57 G	46890311.99	46890312.00	46890312.01	0.1593	0.1589
Venus	123670-02-17 22:31 G	46890648.36	46890648.44	46890648.53	0.1939	0.1705
Mercury	123678-07-27 23:00 G	46893730.35	46893730.46	46893730.58	0.1587	0.1027
Mercury	123681-05-13 15:48 G	46894751.05	46894751.16	46894751.27	0.1951	0.0868
Mercury	123687-12-18 04:45 G	46897160.55	46897160.70	46897160.85	0.1586	0.0010
Mercury	123690-10-03 21:19 G	46898181.28	46898181.39	46898181.51	0.1952	0.0706
Mercury	123697-05-09 10:31 G	46900590.83	46900590.94	46900591.06	0.1585	0.1000
Venus	123701-03-18 02:36 G	46901998.44	46901998.61	46901998.78	0.1597	0.0410
Mercury	123718-01-26 23:29 G	46908157.38	46908157.48	46908157.58	0.1587	0.1195
Mercury	123720-11-12 15:48 G	46909178.05	46909178.16	46909178.26	0.1951	0.1015
Mercury	123727-06-19 05:00 G	46911587.56	46911587.71	46911587.86	0.1586	0.0160
Mercury	123730-04-04 21:33 G	46912608.28	46912608.40	46912608.52	0.1953	0.0525

Moon	123731-08-14 09:05 G	46913104.70	46913104.88	46913105.06	0.1721	0.0102
Earth	123731-08-14 13:53 G	46913104.89	46913105.08	46913105.26	0.1721	0.0226 *
Venus	123735-12-16 23:29 G	46914690.32	46914690.48	46914690.64	0.1941	0.0718
Mercury	123736-11-08 11:00 G	46915017.83	46915017.96	46915018.09	0.1585	0.0840
Mercury	123757-07-27 23:57 G	46922584.42	46922584.50	46922584.57	0.1587	0.1360
Mercury	123760-05-13 15:48 G	46923605.07	46923605.16	46923605.26	0.1951	0.1193
Mercury	123766-12-18 05:29 G	46926014.58	46926014.73	46926014.88	0.1586	0.0333
Venus	123767-01-13 15:19 G	46926040.97	46926041.14	46926041.32	0.1596	0.0184
Mercury	123769-10-03 21:48 G	46927035.28	46927035.41	46927035.53	0.1952	0.0357
Mercury	123776-05-09 11:14 G	46929444.84	46929444.97	46929445.11	0.1585	0.0683
Mercury	123779-02-24 03:05 G	46930465.63	46930465.63	46930465.63	0.1954	0.1953
Mercury	123797-01-26 00:12 G	46937011.47	46937011.51	46937011.55	0.1587	0.1524
Mercury	123799-11-12 16:02 G	46938032.09	46938032.17	46938032.26	0.1951	0.1377
Venus	123801-10-14 00:55 G	46938732.36	46938732.54	46938732.71	0.1943	0.0249
Mercury	123806-06-19 05:57 G	46940441.60	46940441.75	46940441.89	0.1586	0.0494
Mercury	123809-04-04 21:48 G	46941462.29	46941462.41	46941462.53	0.1952	0.0179
Mercury	123815-11-09 11:43 G	46943871.85	46943871.99	46943872.13	0.1585	0.0518
Mercury	123818-08-26 03:05 G	46944892.58	46944892.63	46944892.68	0.1954	0.1774
Mercury	123825-03-31 17:43 G	46947302.20	46947302.24	46947302.28	0.1584	0.1511
Venus	123832-11-11 04:17 G	46950083.51	46950083.68	46950083.86	0.1595	0.0053
Mercury	123839-05-14 16:02 G	46952459.10	46952459.17	46952459.25	0.1950	0.1529
Mercury	123845-12-18 06:12 G	46954868.62	46954868.76	46954868.90	0.1586	0.0651
Mercury	123848-10-03 21:48 G	46955889.29	46955889.41	46955889.54	0.1953	0.0046
Mercury	123855-05-10 11:57 G	46958298.86	46958299.00	46958299.15	0.1585	0.0365
Mercury	123858-02-24 03:33 G	46959319.58	46959319.65	46959319.72	0.1953	0.1582
Mercury	123864-09-29 18:12 G	46961729.18	46961729.26	46961729.33	0.1585	0.1353
Venus	123867-08-11 01:53 G	46962774.45	46962774.58	46962774.72	0.1945	0.1218
Mercury	123878-11-12 16:17 G	46966886.12	46966886.18	46966886.23	0.1950	0.1701
Mercury	123885-06-18 06:41 G	46969295.65	46969295.78	46969295.91	0.1586	0.0820
Mercury	123888-04-03 22:02 G	46970316.30	46970316.42	46970316.54	0.1952	0.0173

Mercury	123894-11-08 12:26 G	46972725.87	46972726.02	46972726.17	0.1585	0.0201
Mercury	123897-08-25 03:19 G	46973746.56	46973746.64	46973746.73	0.1953	0.1433
Venus	123898-09-08 17:14 G	46974126.05	46974126.22	46974126.39	0.1594	0.0273
Mercury	123904-03-31 18:26 G	46976156.17	46976156.27	46976156.37	0.1585	0.1198
Earth	123911-02-11 23:14 G	46978664.33	46978664.47	46978664.62	0.1824	0.1240
Moon	123911-02-12 07:24 G	46978664.66	46978664.81	46978664.97	0.1824	0.1059
Mercury	123918-05-14 16:31 G	46981313.16	46981313.19	46981313.21	0.1950	0.1888
Mercury	123924-12-18 07:09 G	46983722.68	46983722.80	46983722.91	0.1586	0.0986
Mercury	123927-10-04 22:02 G	46984743.30	46984743.42	46984743.54	0.1952	0.0337
Mercury	123934-05-10 12:55 G	46987152.89	46987153.04	46987153.19	0.1585	0.0035
Mercury	123937-02-24 03:33 G	46988173.56	46988173.65	46988173.75	0.1953	0.1238
Mercury	123943-09-30 18:55 G	46990583.17	46990583.29	46990583.40	0.1585	0.1036
Mercury	123964-06-18 07:24 G	46998149.70	46998149.81	46998149.91	0.1587	0.1145
Venus	123964-07-07 05:57 G	46998168.59	46998168.75	46998168.92	0.1593	0.0505
Mercury	123967-04-04 22:17 G	46999170.31	46999170.43	46999170.55	0.1952	0.0517
Mercury	123973-11-08 13:09 G	47001579.90	47001580.05	47001580.20	0.1586	0.0130
Mercury	123976-08-25 03:48 G	47002600.56	47002600.66	47002600.76	0.1953	0.1060
Mercury	123983-03-31 19:09 G	47005010.18	47005010.30	47005010.43	0.1585	0.0877
Venus	123996-07-05 20:36 G	47009855.31	47009855.36	47009855.42	0.1597	0.1503

125TH MILLENNIUM CE

This is a list of transits visible from Mars in the 125th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mercury	124003-12-18 07:53 G	47012576.75	47012576.83	47012576.91	0.1586	0.1318
Mercury	124006-10-03 22:17 G	47013597.32	47013597.43	47013597.55	0.1952	0.0691
Mercury	124013-05-09 13:38 G	47016006.92	47016007.07	47016007.22	0.1585	0.0287
Earth	124015-08-17 09:48 G	47016836.73	47016836.91	47016837.10	0.1714	0.0189
Moon	124015-08-17 16:02 G	47016836.98	47016837.17	47016837.36	0.1715	0.0297 *
Mercury	124016-02-24 03:48 G	47017027.55	47017027.66	47017027.77	0.1953	0.0901
Mercury	124022-09-29 19:24 G	47019437.18	47019437.31	47019437.45	0.1585	0.0723
Venus	124030-05-04 19:09 G	47022211.15	47022211.30	47022211.46	0.1592	0.0719
Venus	124031-04-05 10:02 G	47022546.88	47022546.92	47022546.95	0.1942	0.1885
Mercury	124043-06-18 08:07 G	47027003.79	47027003.84	47027003.90	0.1587	0.1482
Mercury	124046-04-03 22:31 G	47028024.33	47028024.44	47028024.55	0.1951	0.0856
Mercury	124052-11-07 14:07 G	47030433.94	47030434.09	47030434.23	0.1586	0.0456
Mercury	124055-08-25 04:02 G	47031454.55	47031454.67	47031454.78	0.1953	0.0717
Mercury	124062-03-30 19:53 G	47033864.19	47033864.33	47033864.47	0.1585	0.0556
Venus	124062-05-03 09:48 G	47033897.80	47033897.91	47033898.01	0.1595	0.1277
Mercury	124071-08-21 01:53 G	47037294.56	47037294.58	47037294.61	0.1584	0.1549
Mercury	124085-10-02 22:31 G	47042451.34	47042451.44	47042451.55	0.1952	0.1032
Mercury	124092-05-08 14:21 G	47044860.96	47044861.10	47044861.24	0.1586	0.0615
Mercury	124095-02-23 04:17 G	47045881.56	47045881.68	47045881.80	0.1953	0.0526
Venus	124096-03-01 07:53 G	47046253.69	47046253.83	47046253.97	0.1591	0.0949
Venus	124097-01-30 11:43 G	47046588.83	47046588.99	47046589.14	0.1944	0.0946
Mercury	124101-09-29 20:21 G	47048291.20	47048291.35	47048291.49	0.1585	0.0395
Mercury	124111-02-20 02:21 G	47051721.53	47051721.60	47051721.67	0.1584	0.1384
Mercury	124125-04-03 22:45 G	47056878.36	47056878.45	47056878.55	0.1951	0.1209
Venus	124128-02-29 22:31 G	47057940.31	47057940.44	47057940.57	0.1595	0.1049
Mercury	124131-11-08 14:50 G	47059287.98	47059288.12	47059288.25	0.1586	0.0780
Mercury	124134-08-25 04:17 G	47060308.55	47060308.68	47060308.80	0.1953	0.0379
Mercury	124141-03-30 20:36 G	47062718.21	47062718.36	47062718.51	0.1585	0.0238
Mercury	124150-08-21 02:36 G	47066148.52	47066148.61	47066148.71	0.1585	0.1230
Venus	124161-12-28 21:05 G	47070296.26	47070296.38	47070296.50	0.1590	0.1164

Venus	124162-11-28 12:26 G	47070630.84	47070631.02	47070631.19	0.1945	0.0064
Mercury	124164-10-02 22:45 G	47071305.37	47071305.45	47071305.54	0.1951	0.1372
Mercury	124171-05-09 15:05 G	47073715.01	47073715.13	47073715.26	0.1586	0.0950
Mercury	124174-02-23 04:31 G	47074735.57	47074735.69	47074735.81	0.1953	0.0179
Mercury	124180-09-28 21:05 G	47077145.23	47077145.38	47077145.53	0.1585	0.0079
Mercury	124183-07-16 09:48 G	47078165.86	47078165.91	47078165.95	0.1953	0.1803
Mercury	124190-02-19 03:05 G	47080575.52	47080575.63	47080575.74	0.1584	0.1072
Venus	124193-12-27 11:43 G	47081982.84	47081982.99	47081983.14	0.1593	0.0829
Moon	124195-02-12 07:24 G	47082394.78	47082394.81	47082394.84	0.1834	0.1811
Mercury	124204-04-03 23:00 G	47085732.39	47085732.46	47085732.53	0.1951	0.1560
Mercury	124210-11-08 15:33 G	47088142.04	47088142.15	47088142.26	0.1586	0.1111
Mercury	124213-08-25 04:31 G	47089162.57	47089162.69	47089162.82	0.1952	0.0059
Mercury	124220-03-30 21:19 G	47091572.24	47091572.39	47091572.55	0.1585	0.0100
Earth	124220-08-17 01:38 G	47091711.48	47091711.57	47091711.66	0.1703	0.1466
Moon	124220-08-17 07:09 G	47091711.69	47091711.80	47091711.91	0.1703	0.1395
Mercury	124223-01-15 10:02 G	47092592.85	47092592.92	47092592.98	0.1953	0.1615
Venus	124227-10-27 10:02 G	47094338.84	47094338.92	47094339.01	0.1590	0.1388
Venus	124228-09-25 13:53 G	47094672.93	47094673.08	47094673.23	0.1947	0.1018
Mercury	124229-08-21 03:33 G	47095002.53	47095002.65	47095002.77	0.1585	0.0906
Mercury	124243-10-03 23:00 G	47100159.41	47100159.46	47100159.52	0.1951	0.1723
Mercury	124250-05-09 15:48 G	47102569.07	47102569.16	47102569.25	0.1586	0.1273
Mercury	124253-02-23 04:45 G	47103589.57	47103589.70	47103589.82	0.1953	0.0170
Mercury	124259-09-29 21:48 G	47105999.26	47105999.41	47105999.56	0.1585	0.0252
Venus	124259-10-26 00:41 G	47106025.37	47106025.53	47106025.69	0.1593	0.0599
Mercury	124262-07-16 10:17 G	47107019.84	47107019.93	47107020.01	0.1953	0.1425
Mercury	124269-02-19 03:48 G	47109429.53	47109429.66	47109429.79	0.1585	0.0747
Mercury	124283-04-03 23:14 G	47114586.44	47114586.47	47114586.49	0.1951	0.1896
Mercury	124289-11-07 16:17 G	47116996.13	47116996.18	47116996.24	0.1586	0.1448
Mercury	124292-08-24 04:45 G	47118016.58	47118016.70	47118016.83	0.1952	0.0354
Mercury	124299-03-30 22:17 G	47120426.28	47120426.43	47120426.57	0.1585	0.0421

Moon	124299-08-20 01:09 G	47120568.37	47120568.55	47120568.73	0.1708	0.0309
Earth	124299-08-20 08:07 G	47120568.67	47120568.84	47120569.02	0.1708	0.0646 *
Mercury	124302-01-15 10:17 G	47121446.83	47121446.93	47121447.02	0.1953	0.1256
Mercury	124308-08-21 04:02 G	47123856.54	47123856.67	47123856.81	0.1585	0.0594
Mercury	124318-01-11 10:31 G	47127286.92	47127286.94	47127286.95	0.1584	0.1573
Venus	124325-08-23 13:38 G	47130067.90	47130068.07	47130068.24	0.1592	0.0379
Mercury	124332-02-24 05:14 G	47132443.60	47132443.72	47132443.83	0.1952	0.0539
Mercury	124338-09-29 22:31 G	47134853.30	47134853.44	47134853.58	0.1585	0.0584
Mercury	124341-07-16 10:17 G	47135873.83	47135873.93	47135874.04	0.1953	0.1084
Mercury	124348-02-20 04:31 G	47138283.55	47138283.69	47138283.84	0.1585	0.0426
Mercury	124357-07-12 10:45 G	47141713.89	47141713.95	47141714.02	0.1584	0.1414
Mercury	124371-08-25 05:00 G	47146870.60	47146870.71	47146870.83	0.1952	0.0689
Mercury	124378-03-30 23:00 G	47149280.32	47149280.46	47149280.59	0.1586	0.0745
Mercury	124381-01-14 10:45 G	47150300.84	47150300.95	47150301.06	0.1953	0.0880
Mercury	124387-08-21 05:00 G	47152710.56	47152710.71	47152710.86	0.1585	0.0264
Venus	124391-06-21 02:36 G	47154110.43	47154110.61	47154110.78	0.1591	0.0152
Mercury	124397-01-10 11:14 G	47156140.88	47156140.97	47156141.06	0.1584	0.1249
Mercury	124411-02-23 05:14 G	47161297.62	47161297.72	47161297.83	0.1952	0.0887
Mercury	124417-09-28 23:14 G	47163707.35	47163707.47	47163707.60	0.1585	0.0912
Mercury	124420-07-15 10:45 G	47164727.83	47164727.95	47164728.06	0.1953	0.0726
Mercury	124427-02-19 05:14 G	47167137.57	47167137.72	47167137.87	0.1585	0.0111
Mercury	124436-07-11 11:29 G	47170567.88	47170567.98	47170568.09	0.1585	0.1095
Mercury	124450-08-24 05:29 G	47175724.63	47175724.73	47175724.83	0.1952	0.1057
Mercury	124457-03-29 23:43 G	47178134.38	47178134.49	47178134.60	0.1586	0.1083
Venus	124457-04-17 16:02 G	47178152.99	47178153.17	47178153.34	0.1590	0.0072
Venus	124458-03-17 23:29 G	47178487.34	47178487.48	47178487.62	0.1946	0.1144
Mercury	124460-01-14 11:00 G	47179154.84	47179154.96	47179155.08	0.1953	0.0536
Mercury	124466-08-20 05:43 G	47181564.59	47181564.74	47181564.89	0.1585	0.0069
Mercury	124476-01-10 11:57 G	47184994.88	47184995.00	47184995.12	0.1584	0.0936
Mercury	124490-02-22 05:29 G	47190151.64	47190151.73	47190151.83	0.1952	0.1231

Mercury 124496-09-28 00:12 G 47192561.41 47192561.51 47192561.60 0.1586 0.1244

Mercury 124499-07-15 11:14 G 47193581.84 47193581.97 47193582.09 0.1953 0.0347

Moon 124504-08-19 23:00 G 47195443.34 47195443.46 47195443.58 0.1697 0.1183

Earth 124504-08-20 01:38 G 47195443.42 47195443.57 47195443.73 0.1697 0.0937 *

Mercury 124506-02-19 06:12 G 47195991.61 47195991.76 47195991.91 0.1585 0.0229

Mercury 124515-07-12 12:12 G 47199421.88 47199422.01 47199422.15 0.1585 0.0772

Venus 124523-02-14 04:45 G 47202195.52 47202195.70 47202195.87 0.1590 0.0292

Venus 124524-01-14 01:24 G 47202529.39 47202529.56 47202529.73 0.1947 0.0199

Mercury 124529-08-24 05:43 G 47204578.66 47204578.74 47204578.83 0.1952 0.1414

Mercury 124536-03-30 00:26 G 47206988.46 47206988.52 47206988.59 0.1586 0.1413

Mercury 124539-01-14 11:14 G 47208008.84 47208008.97 47208009.09 0.1952 0.0183

Mercury 124545-08-20 06:26 G 47210418.62 47210418.77 47210418.92 0.1585 0.0386

Mercury 124548-06-05 16:17 G 47211439.14 47211439.18 47211439.23 0.1953 0.1798

Mercury 124555-01-10 12:41 G 47213848.89 47213849.03 47213849.17 0.1585 0.0610

Moon 124558-02-18 05:43 G 47214983.56 47214983.74 47214983.92 0.1836 0.0808

Earth 124558-02-18 15:05 G 47214984.00 47214984.13 47214984.26 0.1835 0.1404

Mercury 124569-02-22 05:57 G 47219005.68 47219005.75 47219005.82 0.1951 0.1596

Mercury 124575-09-29 00:55 G 47221415.54 47221415.54 47221415.55 0.1586 0.1582

Mercury 124578-07-15 11:14 G 47222435.85 47222435.97 47222436.10 0.1952 0.0047

Earth 124583-08-23 07:09 G 47224300.66 47224300.80 47224300.94 0.1702 0.1123

Moon 124583-08-23 09:19 G 47224300.77 47224300.89 47224301.02 0.1702 0.1280 *

Mercury 124585-02-18 06:55 G 47224845.65 47224845.79 47224845.93 0.1585 0.0559

Mercury 124587-12-05 16:31 G 47225866.12 47225866.19 47225866.26 0.1953 0.1609

Venus 124588-12-11 17:57 G 47226238.09 47226238.25 47226238.42 0.1589 0.0501

Venus 124589-11-10 02:21 G 47226571.44 47226571.60 47226571.76 0.1948 0.0800

Mercury 124594-07-11 12:55 G 47228275.90 47228276.04 47228276.19 0.1585 0.0452

Mercury 124603-12-02 19:24 G 47231706.25 47231706.31 47231706.37 0.1585 0.1435

Mercury 124608-08-24 05:57 G 47233432.70 47233432.75 47233432.80 0.1952 0.1755

Mercury 124618-01-14 11:43 G 47236862.86 47236862.99 47236863.11 0.1952 0.0206

Venus 124620-12-11 08:36 G 47237924.80 47237924.86 47237924.92 0.1592 0.1492

Mercury	124624-08-20 07:24 G	47239272.67	47239272.81	47239272.94	0.1585	0.0723
Mercury	124627-06-06 16:45 G	47240293.12	47240293.20	47240293.28	0.1952	0.1431
Mercury	124634-01-10 13:24 G	47242702.91	47242703.06	47242703.21	0.1585	0.0284
Mercury	124643-06-02 19:38 G	47246133.24	47246133.32	47246133.41	0.1585	0.1274
Venus	124654-10-10 06:55 G	47250280.64	47250280.79	47250280.95	0.1588	0.0725
Venus	124655-09-08 03:48 G	47250613.59	47250613.66	47250613.74	0.1950	0.1760
Mercury	124657-07-15 11:43 G	47251289.86	47251289.99	47251290.11	0.1952	0.0365
Mercury	124664-02-19 07:38 G	47253699.70	47253699.82	47253699.95	0.1585	0.0884
Mercury	124666-12-05 17:00 G	47254720.11	47254720.21	47254720.30	0.1953	0.1245
Mercury	124673-07-11 13:52 G	47257129.93	47257130.08	47257130.23	0.1585	0.0134
Mercury	124682-12-01 20:07 G	47260560.23	47260560.34	47260560.44	0.1585	0.1111
Venus	124686-10-08 21:19 G	47261967.29	47261967.39	47261967.50	0.1591	0.1263
Mercury	124697-01-13 11:57 G	47265716.88	47265717.00	47265717.12	0.1952	0.0554
Mercury	124703-08-21 08:07 G	47268126.73	47268126.84	47268126.95	0.1585	0.1054
Mercury	124706-06-06 17:00 G	47269147.11	47269147.21	47269147.32	0.1952	0.1066
Mercury	124713-01-10 14:07 G	47271556.94	47271557.09	47271557.24	0.1585	0.0037
Venus	124720-08-07 20:07 G	47274323.20	47274323.34	47274323.48	0.1588	0.0944
Mercury	124722-06-02 20:21 G	47274987.23	47274987.35	47274987.47	0.1585	0.0956
Mercury	124736-07-15 11:57 G	47280143.89	47280144.00	47280144.12	0.1952	0.0740
Mercury	124743-02-19 08:21 G	47282553.76	47282553.85	47282553.95	0.1586	0.1221
Mercury	124745-12-05 17:14 G	47283574.11	47283574.22	47283574.33	0.1952	0.0884
Mercury	124752-07-11 14:36 G	47285983.96	47285984.11	47285984.26	0.1585	0.0207
Venus	124752-08-06 10:31 G	47286009.82	47286009.94	47286010.08	0.1590	0.1050
Mercury	124761-12-01 20:50 G	47289414.24	47289414.37	47289414.50	0.1585	0.0789
Mercury	124776-01-14 12:12 G	47294570.90	47294571.01	47294571.12	0.1952	0.0904
Mercury	124782-08-20 08:50 G	47296980.80	47296980.87	47296980.94	0.1586	0.1382
Mercury	124785-06-05 17:28 G	47298001.11	47298001.23	47298001.35	0.1953	0.0694
Venus	124786-06-05 09:19 G	47298365.77	47298365.89	47298366.01	0.1587	0.1161
Moon	124788-08-22 20:21 G	47299175.17	47299175.35	47299175.53	0.1691	0.0346
Earth	124788-08-23 02:50 G	47299175.44	47299175.62	47299175.80	0.1691	0.0389 *

Mercury	124792-01-10 14:50 G	47300410.98	47300411.12	47300411.27	0.1585	0.0371
Mercury	124801-06-01 21:04 G	47303841.25	47303841.38	47303841.52	0.1585	0.0632
Mercury	124815-07-15 12:12 G	47308997.91	47308998.01	47308998.12	0.1952	0.1086
Venus	124818-06-03 23:43 G	47310052.34	47310052.49	47310052.63	0.1590	0.0824
Venus	124819-05-03 12:26 G	47310385.90	47310386.02	47310386.14	0.1947	0.1385
Mercury	124822-02-18 09:19 G	47311407.87	47311407.89	47311407.91	0.1586	0.1557
Mercury	124824-12-04 17:43 G	47312428.12	47312428.24	47312428.36	0.1952	0.0516
Mercury	124831-07-11 15:19 G	47314837.99	47314838.14	47314838.28	0.1585	0.0529
Mercury	124840-11-30 21:33 G	47318268.26	47318268.40	47318268.54	0.1585	0.0471
Moon	124842-02-19 23:28 G	47318714.28	47318714.48	47318714.68	0.1845	0.0749
Earth	124842-02-20 05:43 G	47318714.55	47318714.74	47318714.93	0.1844	0.0687 *
Mercury	124850-04-23 04:02 G	47321698.61	47321698.67	47321698.73	0.1585	0.1451
Venus	124852-04-01 22:16 G	47322408.35	47322408.43	47322408.52	0.1587	0.1385
Mercury	124855-01-13 12:40 G	47323424.93	47323425.03	47323425.12	0.1952	0.1286
Mercury	124864-06-04 17:43 G	47326855.12	47326855.24	47326855.36	0.1952	0.0339
Earth	124867-08-26 07:24 G	47328032.77	47328032.81	47328032.86	0.1696	0.1639
Moon	124867-08-26 14:21 G	47328033.03	47328033.10	47328033.17	0.1696	0.1568
Mercury	124871-01-09 15:48 G	47329265.02	47329265.16	47329265.29	0.1585	0.0700
Mercury	124880-05-31 21:48 G	47332695.27	47332695.41	47332695.56	0.1585	0.0311
Venus	124884-03-31 12:55 G	47334094.88	47334095.04	47334095.20	0.1589	0.0610
Venus	124885-02-27 13:52 G	47334427.91	47334428.08	47334428.25	0.1948	0.0420
Mercury	124889-10-22 04:16 G	47336125.60	47336125.68	47336125.77	0.1585	0.1295
Mercury	124894-07-14 12:26 G	47337851.94	47337852.02	47337852.11	0.1952	0.1436
Mercury	124903-12-05 17:57 G	47341282.13	47341282.25	47341282.38	0.1952	0.0148
Mercury	124910-07-11 16:02 G	47343692.04	47343692.17	47343692.30	0.1585	0.0861
Mercury	124913-04-26 23:14 G	47344712.42	47344712.47	47344712.51	0.1952	0.1783
Mercury	124919-12-01 22:16 G	47347122.28	47347122.43	47347122.58	0.1585	0.0144
Mercury	124929-04-23 04:45 G	47350552.60	47350552.70	47350552.80	0.1585	0.1131
Mercury	124934-01-13 12:40 G	47352278.97	47352279.03	47352279.10	0.1952	0.1629
Mercury	124943-06-05 18:12 G	47355709.13	47355709.26	47355709.38	0.1952	0.0058

Mercury	124950-01-09 16:16 G	47358119.07	47358119.18	47358119.30	0.1585	0.1026
Venus	124950-01-28 01:38 G	47358137.40	47358137.57	47358137.74	0.1588	0.0380
Venus	124950-12-26 15:33 G	47358469.98	47358470.15	47358470.31	0.1950	0.0549
Mercury	124952-10-25 23:14 G	47359139.40	47359139.47	47359139.53	0.1952	0.1617
Mercury	124959-06-01 22:31 G	47361549.29	47361549.44	47361549.59	0.1585	0.0048
Mercury	124968-10-22 05:00 G	47364979.59	47364979.71	47364979.83	0.1585	0.0974
Mercury	124973-07-14 12:55 G	47366706.00	47366706.04	47366706.09	0.1951	0.1812
Mercury	124982-12-04 18:12 G	47370136.14	47370136.26	47370136.39	0.1952	0.0211
Mercury	124989-07-10 16:45 G	47372546.11	47372546.20	47372546.30	0.1585	0.1197
Mercury	124992-04-25 23:28 G	47373566.39	47373566.48	47373566.57	0.1952	0.1414
Mercury	124998-11-30 23:00 G	47375976.31	47375976.46	47375976.61	0.1585	0.0181